# Bibliotheca Herpetologica

A Journal of the History and Bibliography of Herpetology

VOL. 6, NO. 2, 2006

International Society for the History and Bibliography of Herpetology

International Society for the History and Bibliography of Herpetology

### The Society

The **ISHBH** is a not-for-profit organization established to bring together individuals for whom the history and bibliography of herpetology is appealing, to promote the knowledge of related topics among members and the general public, and to promote research. Membership is open to anyone who shares the aims of the Society.

### Membership

The biennial fee for 2006–2007 is US $30, Institutions US $50 and Life Membership US $300. This fee includes a subscription to the Society's biannual journal *Bibliotheca Herpetologica* (formerly the *International Society for the History and Bibliography of Herpetology Newsletter and Bulletin*). A membership form can be found on our Web site. Payment can be made with a personal check or a money order drawn on a US bank. Please submit the payment to our postal address below. In the EU and elsewhere you may pay the USD corresponding amount in EUR or SEK. From EU countries: IBAN: SE83 9500 0099 6042 0455 1206, BIC: NDEASESS. From elsewhere: Account No. 455120-6 with Plusgirot, Stockholm, Sweden, Swift: NDEASESS. For any other method of payment please contact us first.

Members are encouraged to contribute with articles, essays, news of meetings, hints on antiquarian trade, book reviews and other issues associated with herpetology. The Society organizes seminars, visits to libraries, museums, research stations, etc. in connection with herpetological meetings with international participation. The Society works to facilitate informal contacts among members so that the members can meet, offer support in knowledge and transact exchanges of literature and ephemera.

**Executive Committee Members for 2004-2005:**

*Chairperson*: Richard Wahlgren (Sweden), Richard.Wahlgren@skanska.se

*Vice-chairperson*: Ronald Javitch (Canada), biblijav@total.net

*Secretary-Treasurer*: John Moriarty (USA), john.moriarty@co.ramsey.mn.us

*Meeting Organizer*: Aaron Bauer (USA), aaron.bauer@villanova.edu

*Editor*: Patrick David (France), pdavid@mnhn.fr

**Other officers:**

*Managing Editor and Webmaster*: Ralph Tramontano (USA), nature@t-ad.net

**Address of the Society:**

Int. Soc. History & Bibl. Herpetology
Box 2123,
SE-220 02 Lund, Sweden

**www.t-ad.net/ishbh**

## Instructions for Authors

Authors submitting a manuscript do so on the understanding that the work has not been published before and is not being considered for publication elsewhere. Manuscripts are peer reviewed. *Bibliotheca Herpetologica* (formerly the *International Society for the History and Bibliography of Herpetology Newsletter and Bulletin*) is submitted to BIOSIS (U.K.) for inclusion in *Zoological Record*.

The language of *Bibliotheca Herpetologica* is English. British English or American English spelling and terminology may be used, but either one should be used consistently throughout the article. Consult the latest issue of *Bibliotheca Herpetologica* for article format. The Editor reserves the right to adjust style to maintain uniformity.

Manuscripts should be submitted to the Editor (pdavid@mnhn.fr) in electronic form and preferably in Rich Text Format (*.rtf; this ensures cross-platform compatibility). However, you should contact the Editor first for advice. Color illustrations other than used for the cover will be at the author's expense. Illustrations should also be submitted in electronic form, but consult with the Managing Editor first. The ISHBH cannot take responsibility for material sent by post.

# Society News

### The Herpetological Legacy of Carl Linnaeus: A Celebration of the Linnaean Tercentenary

This is the title of a symposium that the Society is aiming to hold at the July 2007 Joint Meeting of Ichthyologists and Herpetologists in St. Louis, Missouri. The response from members planning to contribute talks has been very positive. At this time we are awaiting approval and sponsorship from the Herpetologists' League.

### Carl Linnaeus: Museum S:æ R:æ M:tis Adolphi Friderici Regis (1754)

As an appropriate prelude to the planned symposium, this issue contains a paper by László Krecsák on an extraordinary contribution to herpetology by Carl Linnaeus: *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (1754). It deals with descriptions of taxa, primarily snakes, in the natural history cabinet of the King of Sweden, Adolf Fredrik (1710-1771). The book, a large folio measuring 50 by 30 cm, has 21 plates depicting snakes and text in Latin and Swedish. For the first time in a zoological work Linnaeus consistently used his binominal nomenclature to describe species. However, as the book was published before 1758 it has no direct influence on present nomenclature. Nevertheless, all the taxa of *Coluber* reappeared in his unillustrated 10th edition of *Systema Naturae* (1758). Consequently, the volume serves as an atlas to *Systema Naturae*, at least for certain snakes.

This book has, to my best knowledge, not been on the market for sale since 1979 when a principal library in Sweden released two duplicate copies to an antiquarian dealer. They were promptly sold at a price of about US $4,200 each. The celebrated Swedish naturalist, artist and author of numerous books on natural history, history of science and related subjects, Dr. Gunnar Brusewitz, bought one of the two copies. During his lifetime, 1924-2004, he assembled one of the finest private book collections in Sweden on natural history. An antiquarian book dealer, Mats Rehnström, is now selling the library following Brusewitz' death in three fine catalogues, one each year over the period 2006-2008. Catalogue 1, mainly with Swedish literature, was available on June 1 and it contained the copy of *Museum S:æ R:æ M:tis Adolphi Friderici Regis*. It was sold immediately at the catalogue price, corresponding to US$ 102,000. Strangely enough, just a few hours later, another copy was sold at one of Stockholm's finest auction houses, Bukowski's, at their International Spring Auction. This copy was rather defective and lacking the first four leaves including the title page. The hammer price, including the usual commission, was merely US$ 7,200. The much lower price was not simply due to the missing leaves but can also be attributed to the fact that the audience buying Linnaeus' original literature did not know it was for sale at an auction that was selling furniture, artwork and the like.

Knowing the scarcity of *Museum Adolphi Friderici*, as it is usually referred to, one can be thankful that the French author, Abbé P. J. Bonnaterre in his *Tableau encyclopédique et méthodique des trois règnes de la nature, Ophiologie* (1790) carefully copied most of the snakes from the plates in Linnaeus' work. This book, although not common at all, is at least not that expensive when it turns up on the market. Mr. Krecsák in his paper explains the relation between the pictures and the nomenclature of the two books.

### The Financial Statement for 2005

This is available on the website or can be ordered from the Society.

### On The Cover

"The Tortoise Trainer" (1906) by Turkish painter Osman Hamdi. Depicted herein is the artist himself disguised as a dervish (Fig. 3, p. 14 is a portrait of Hamdi). The dervish is armed with a *ney* (a reed flute) and a *nakkare* (a kettledrum) – thought to represent Osman Hamdi's art – with which he will attempt to "train" the tortoises at his feet. Courtesy the collection of Suna and Inan Kiraç Foundation-Pera Museum.

© International Society for the History and Bibliography of Herpetology, ISHBH
*Bibliotheca Herpetologica*, Vol. 6(2): 4–10, 2006

# The First Published Illustration of a Pleurodiran Turtle?

AARON M. BAUER[1] and CHUCK SCHAFFER[2]
[1](Corresponding Author) Department of Biology, Villanova University,
800 Lancaster Avenue, Villanova, PA 19085-1699, USA,
aaron.bauer@villanova.edu, Phone: 610-519-4857, Fax: 610-519-7863
[2]13811 Tortuga Point Drive, Jascksonville, FL 32225, USA, Chelonian1@aol.com

Pre-Linnaean printed natural history books abound with chelonian illustrations of variable quality (e.g., Gesner 1554; Aldrovandi 1637; Caldesi 1687; Feuillée 1725; see Walbaum 1782 and Schneider 1783 for a review of many early works on turtles). Sea turtles, because of their large size and economic significance, were initially favored subjects, but a variety of terrestrial and freshwater cryptodires were also figured and discussed by early authors. However, pleurodires, with their southern distributions, were largely unknown to European naturalists until the mid- to late 18th century. Indeed, Linnaeus described no side-necked turtles, and only *Chelus fimbriatus* (Schneider, 1783), *Chelodina longicollis* (Shaw, 1794), *Pelomedusa subrufa* (Bonnaterre, 1789) and *Pelusios subniger* (Bonnaterre, 1789) were described prior to the 19th century.

South American chelids and pelomedusids were probably known to Europeans at least two centuries prior to their formal description, however, and they were mentioned, if not figured, in numerous natural history works of the 17th and 18th centuries. Marggraf (1648) made reference to three unidentified turtles in Brazil, one of them a freshwater species - probably a pleurodire, although there are no illustrations and the text is too vague to permit identification. Barrère (1741) listed seven chelonians for French Guiana – three of them marine. The others include the first mention of the *raparapa* (= matamata, *Chelus fimbriatus*), two nondescript terrestrial turtles, and one river turtle, possibly a pleurodire. Fermin (1765) also discussed the *raparapa* and two other non-marine turtles and later (Fermin, 1769) mentioned three other species of terrestrial and freshwater turtles in Surinam. None of these turtles, however, were illustrated, so their specific identities remain a matter of conjecture. Even the distinctive matamata remained unfigured well into the second half of the 18th century.

Recorded terrestrial and freshwater chelonian observations in sub-Saharan Africa date back at least to the early 16th century. For example, Raven-Hart (1967) noted comments made by numerous early visitors to the Cape of Good Hope including Antonio de Saldanha (1503), Nicholas Downton (1610), Thomas Herbert (1627), Francis Cauche (1644), and Etiènne de Flacourt (1648), all of whom mentioned tortoises, chiefly in the context as natural products bartered from indigenous people. Flacourt (1658, 1661) also mentioned two sorts of terrestrial turtles in Madagascar, but without details. He illustrated one "tortue" (reproduced by Rookmaaker, 1989) without reference in the accompanying text, but this is so crudely rendered that it is impossible to say more than that it is not a sea turtle.

Natural history observations in southern Africa began in earnest shortly after the establishment of a replenishment station at the Cape of Good Hope in 1652 by the Dutch East India Company (Verenigde Oost-Indische Compagnie or VOC). Although no naturalists were employed at the Cape, numerous soldiers, doctors, apothecaries and others in the service of the VOC recorded miscellaneous natural history observations. These, as well as the reports of visitors stopping at the Cape en route to or from the Far East, were published in a large number of books published throughout the 154 years of Dutch control (see Rookmaaker 1989 for a review of this litera-

ture). Records of chelonians appear in books published during the earliest colonial period (Hondius 1652; Wurffbain, 1686). Most of these, however, provided little in the way of identifying information and merely distinguished between marine and terrestrial chelonians. For example, Andersen (1669) noted the occurrence of "erdschildpadden" and Nieuhof (1682) recognized both "zee- en lantschildpadden." Not surprisingly, the earliest references to provide some detail about South African chelonians discussed tortoises, probably *Chersina angulata* (Merklein, 1672; Frik, 1692), which were both common and an economically valuable commodity.

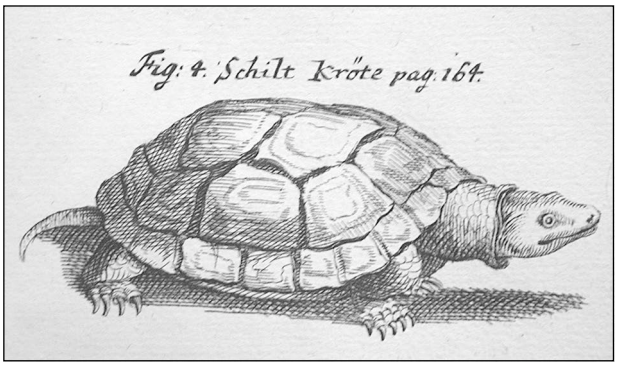



***Fig. 1.*** *Illustration of a chelonian probably intended to represent* Pelomedusa subrufa *from fig. 4 in plate VI in Kolb (1719).*

The earliest illustration that appears to represent a southern African side-necked turtle was published by Kolb (1719), based on observations made during the period 1705-1713. Peter Kolb (1675-1726) was from Dörflas, Germany, and was trained in mathematics at Halle and was sent to the Cape by Baron Bernhard Friedrich von Krosigk, privy councilor to Friedrich, the first king of Prussia (1657-1713) to make astronomical observations in 1705. Kolb entered the service of the VOC upon the death of his patron von Korsigk in 1709 and in 1711 was posted to Stellenbosch, where he remained until 1713. He apparently made no excursions out of the immediate vicinity of the VOC-controlled area of the southwestern Cape (Rookmaaker 1989). In his subsequent book about the Cape, Kolb (1719) included a lengthy, but largely superficial, section on natural history which included mentions of frogs, marine and freshwater turtles, tortoises, and a variety of lizards and snakes. Several of these animals: a turtle, legless lizard, horned adder, and cobra, were also figured in his book (Bauer 2004). Much of the text was derived from the works of earlier authors, such as Gesner, Aldrovandi, and Franzius, and only a few comments seem to be derived from personal observations.

Kolb's (1719) comments on chelonians were focused chiefly on the human utilization of sea turtles and their eggs. He noted the general absence of sea turtles at the Cape, but indicated that both terrestrial and freshwater turtles were present. Specifically, he reported that the terrestrial turtles were only four inches (111 mm; 1 Prussian inch [Zoll] = 1.09 inches = 27.69 mm) in diameter and had six-sided black and brown markings on the carapace. This tortoise also ate wheat, cabbage and other plants. Given Kolb's familiarity with only the extreme southwestern Cape region his description applies best to *Homopus areolatus*, or perhaps another small testudinid, and such a small chelonian does appear as a tiny figure in the foreground of the frontispiece, which depicts Europeans and Africans with Table Mountain in the background.

However, the sole chelonian illustration in the body of the book (Fig. 4 on plate VI) is of a species resembling *Pelomedusa subrufa* (Fig. 1). This identity is supported by the fact that *P. subrufa* is the only freshwater turtle that occurs in the region visited by Kolb. This same illustration was reproduced in a later Dutch version (1727), but in reverse. Kolb's work was also subsequently translated into English (Kolb 1731) and French (Kolb 1741-1743).

It seems certain that Kolb's figure was meant to represent *P. subrufa*. However, regardless of the author's intentions, it is evident that the

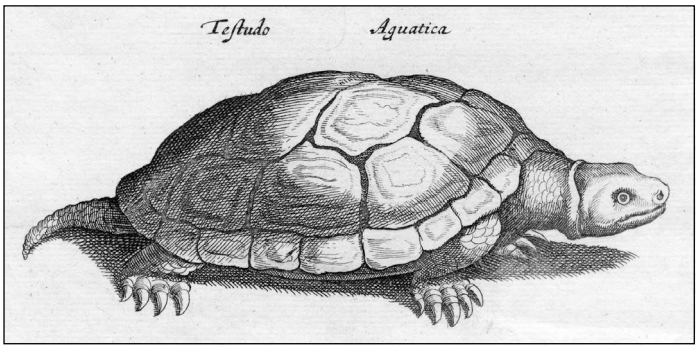



***Fig. 2.*** *Illustration of "Testudo aquatica" from Plate LXXX in Jonstonus (1657) probably intended to represent* Emys orbicularis.

figure was, in fact, based on a cryptodire. We have traced the source of Kolb's illustration to a figure of "Testudo aquatica" on plate LXXX in Jonstonus (1657 and subsequent editions) (Fig. 2), although it is possible that this too was copied from some earlier source which we have not located. Jonstonus' accompanying text provides no real clue to the identity of the species, but we think it likely that it was intended to represent the European pond turtle, *Emys orbicularis*. In addition to the figure's use by Kolb, it was reproduced, without attribution, by Hill (1752) in his *An History of Animals* in the chapter "Of the animals distinguished by the title of amphibious" (pp. 100-113), where it was identified on plate 6 simply as "Testudo Sp. 1" (plate reproduced by Haines, 2000).

An older contender for the earliest illustration of an African pleurodire appears in an account of West Africa by Pieter de Marees (1602). De Marees participated in a Dutch expedition to West Africa in 1600-1601, where he visited the Gold Coast (Ghana), as well as Cape Verde (Senegal), Benin (Nigeria) and Cape Lopez (Gabon). The voyage represents one of the first Dutch expeditions to Africa and helped establish a Dutch presence in the Gold Coast settlement of Elmina that was eventually solidified by the conquest of the Portuguese Fort São Jorge da Mina in 1637 and was maintained until the sale of this and other Dutch outposts to the British in 1871.

Although the Portuguese had established forts along the Guinea coast as early as the late 15th century, the work of de Marees provided the first detailed published description of the region (Beekman 1997). Plate 12 in this work (Fig. 3) depicts animals of "Guinea," most fancifully rendered. The tiny image labeled "E" is identified as a "tortoise." It is not detailed enough to permit specific identification; however, based on the general body shape it is clearly not a testudinid. It may represent a sea turtle, the softshell turtle *Trionyx triunguis*, or one of several pelomedusids occurring in the areas visited by de Marees. Although the carapace shape and limbs are rather cheloniid-like, Chapter 31, with which this plate is associated, deals exclusively with freshwater and terrestrial animals, as do the preceding and following chapters, and no other marine creatures appear in the plate (these being relegated to Chapter 33, dealing with "fish"). Further, it is certain that the engraving represents at best a second-hand illustration of the "tortoise" and more likely was based on even earlier illustrations, or perhaps on the artist's imagination. However, assuming that the animal illustrated is meant to depict a real freshwater chelonian from the vicinity of Elmina, Ghana (where most of de Marees observations were recorded), we think it likely that it was intended to represent either *Pelusios castaneus* or *P. niger*.

The entire plate was reproduced with only minor changes, but in mirror image, as plate 13 (of 26) in subsequent German (1603, 1630) and Latin (1604) versions of de Marees' work in the sixth volume of the "Petits Voyages," a series of books summarizing numerous voyages to Africa and the East Indies published by the de Bry family. A French translation (De Marees 1605) was independently published and an abbreviated English version appeared in 1625 (De Bry 1625). Modern versions include an edited re-

print of the original Dutch (L'Honoré Naber 1912) and an edited and unabridged English translation (van Dantzig and Jones 1987).

***Fig. 3.*** *Plate 12 from de Marees (1602) illustrating a variety of west African animals including a "tortoise" (labeled E, left center), probably representing a pelomedusid.*

If the "tortoise" of de Marees (1602) is accepted as a representation of *Pelusios* sp. or *Pelomedusa subrufa* it would appear to be the first illustration of any pleurodiran chelonian. This illustration appeared quite early in the history of European exploration and colonization of the tropics. It is somewhat surprising, however, that there appear to be no additional pleurodiran representations (excluding derivations of this original and the special case of Kolb's turtle) until the last decades of the 18th century. It seems certain that 16th and 17th century voyagers in both Africa and South America would have been familiar with side-necked turtles. It is likely that their absence from early illustrated works is a reflection of the then prevailing emphasis on observations of economic, navigational, or political significance and the predominance of military men and merchants among early voyagers. We welcome information from readers regarding other early illustrations that might represent side-necked turtles.

**Acknowledgements**

We thank Marianne Hansen and Barbara Ward Grubb of the Miriam Coffin Canaday Library at Bryn Mawr College for access to two copies of Kolb's book and for permission to reproduce his illustration of the turtle. Bente Polites of Falvey Memorial Library, Villanova University provided access to the first edition of Jonstonus. We examined copies of most of the pre-Linnaean works cited at the Ewart Sale Library of the Academy of Natural Sciences of Philadelphia. Arne Schaeffer (Africana Books, Cape Town) provided assistance with bibliographic details of the translations of Kolb's work.

**References**

Aldrovandi, U. 1637. De quadrupedibus digitatus viviparis libri tres, et de quadrupedibus digitatis oviparis libri duo. Bonon [Bologna], Italy: Apud N. Tebaldinum, [6] + 718 + [16] pp.

Andersen, J. 1669. [No title]. In: Olearius, A. Orientalische Reise-Beschreibunge Jürgen Andersen aus Schleswig der An.Christ 1644, außgezogen und 1650 wiederkommen, und Volquard Iversen aus Holstein so An.1655 außgezogen und 1668 wieder angelanget. Schleszwig [Schleswig], Germany: Johan Holwein, pp. 1-180.

Barrère, P. 1741. Essai sur l'Histoire Naturelle de la France Equinoxiale. Ou, Dénombrement des Plantes, des Animaux, & des Minéraux, qui se Trouvent dans l'Isle de Cayenne, les Isles de Remire, sur les Côtes de la Mer, & dans le Continent de la Guyane. Avec leurs Noms Differens, Latins, François, & Indiens, quelques Observations sur leur Usage dans la Medicine & dans les Arts. Paris, France: Piget, xxiv + 215 + [7] pp.

Bauer, A.M. 2004. Early German herpetological observations and explorations in Southern

Africa, with special reference to the Zoological Museum of Berlin. Bonn. Zool. Beitr. 52:193-214.

Beekman, E. M. 1997. The Crippled Heart: An Introduction to the Life, Times and Works of Willem Godschalck van Focquenbroch. Leiden, The Netherlands: Astraea, 173 pp.

Caldesi, G. 1687. Osservazioni Anatomiche di Giovanni Caldesi, Aretino Intorno alle Tartarughe Marittime, d'Acqua Dolce, e Terrestri. Scritte in una Lettera all' Illustriss. Sig. Francesco Redi. Firenze, Italy: P. Matini, [2] + 91 pp., 9 pls.

De Bry, J. T. (ed.). 1603. Sechster Theil der Orientalischen Indien: warhafftige historische Beschreibung dess gewaltigen goltreichen Königreichs Guinea, sonst das Goltgestatt von Mina genandt, so in Africa gelegen, sampt derselben ganzen Beschaffenheit, auch Religion vnnd Opinion, Sitten vnd Sprachen, Handel vnd Wandel der Eynwohner daselbst, beneben einer kurzen Erzehlung, was die Schiffe, so dahin fahren wollen, für einen Lauff durch die Canarische Inseln, biss an das Cabo de Trespunctas, da das Goltgestatt sich anfänget, halten müssen. Franckfurt am Mayn [Frankfurt am Main], Germany: Wolffgang Richtern, [6] + 154 + [2] pp., 26 leaves pls.

De Bry, J. T. (ed.). 1604. Indiæ Orientalis pars VI.: Veram et historicam descriptionem auriferi regni Guineæ, ad Africam pertinentis, quod alias Littus de Mina vocant, continens, qua situs loci, ratio vrbium & domorum, portus item & flumina varia, cum variis incolarum superstitionibus, educatione, forma, commerciis, linguis & moribus, succincta breuitate explicantur & percensentur. Francofurti ad Mœnum [Frankfurt am Main], Germany: Wolfgangi Richteri, [8] + 127 + [3] pp., 26 leaves pls.

De Bry, J.T. (ed.). 1625. A description and historicall declaration of the golden Kingdome of Guinea, otherwise called the golden Coast of Myna, lying in a part of Africa. In: Purchas, S. (ed.). Hakluytus Posthumus or Purchas his Pilgrimes. Containing a History of the World, in Sea Voyages, & Lande-Travells, by Englishmen and Others. Vol. 2, Book 7. London, UK: Pilgrimes, pp. 926-970.

De Bry, J. T. (ed.). 1630. Sechster Theil der Orientalischen Indien: warhafftige historische Beschreibung dess gewaltigen goltreichen Königreichs Guinea, sonst das Goltgestatt von Mina genandt, so in Africa gelegen, sampt derselben ganzen Beschaffenheit, auch Religion vnnd Opinion, Sitten vnd Sprachen, Handel vnd Wandel der Eynwohner daselbst, beneben einer kurzen Erzehlung, was die Schiffe, so dahin fahren wollen, für einen Lauff durch die Canarische Inseln, biss an das Cabo de Trespunctas, da das Goltgestatt sich anfänget, halten müssen. Franckfurt am Mayn [Frankfurt am Main], Germany: Wolffgang Richtern [not seen by authors].

De Marees, P. 1602. Beschryvinge ende historische verhael, vant Gout koninckrijck van Gunea, anders de Gout-custe de Mina genaemt, liggende in het deel van Africa: met haren gelooven, opinien, handelingen, oft mangelingen, manieren talen, eñ haere ghelegentheyt van landen, steden, hutten, huysen eñ persoonen; havenen ende revieren, soo de selve tot noch toe bevonden worden. Mitsgaders oock een cort verhael vande passagie die de schepen derwaerts nemen deur de Carnarische Eylande, voorby Capo de Verde, langs de custe van Manigette, tot aen Capo de Trespunctas, daer de Gout-custe begint: met noch voorts een weynich beschryvens vande reviere diemen versoecht int verseylen vande Gout-custe, tot aende Capo Lopo Gonsalves, daermen zijn afscheyt neemt int t'huyswaerts seylen, alles perfect ende neerstich ondersocht ende beschreven. Amstelredam [Amsterdam], The Netherlands: C. Claesz, 129 + (1) pp., 20 pls.

De Marees, P. 1605. Description et recit historial du riche royaume d'or de Gunea, aultrement nommé, la coste de l'or de Mina, gisante en certain endroict d'Africque. Pareillement vng brieff deduict du passaige que les nauires prennent pour y naviguer, passant au trauers des Isles de Canarie. Amsterdamme

[Amsterdam], The Netherlands: Cornille Claesson, [4] + 12, 12-99 + [8] pp., 20 pls.

Fermin, P. 1765. Histoire Naturelle de la Hollande Equinoxiale; ou Déscription des Animaux, Plantes, Fruits, et autres Curiosités Naturelles, qui se Trouvent dans la Colonie de Surinam; Avec leurs Noms Différents, tant François, que Latins, Hollandois, Indiens & Négre-Anglois. Amsterdam, The Netherlands: M. Magérus, frontispiece, xii + 239 + [2] pp.

Fermin, P. 1769. Déscription Générale, Historique et Physique de la Colonie de Surinam, Tome 2. Amsterdam, The Netherlands: E. van Harrevelt, [2] + 352 pp., 3 folding pls.

Feuillée, L. 1725. Journal des Observations Physiques, Mathematiques et Botaniques, Faites par l'Ordre du Roy sur les Côtes Orientales de l'Amerique Méridionale, & dans les Indes Occidentales, depuis l'Année 1707, jusques en 1712. Tome 3. Paris, France: P. Giffart, [4] + xxiv + [1] + 426 + [4] + 71 + [4] + [1] + xlix pp., 50 pls.

Flacourt, E. de. 1658. Histoire de la Grande Isle Madagascar [with] Relation de la Grande Isle Madagascar, Contenant ce qvi s'est Passé entre les François & les Originaires de cette Isle, depuis l'an 1642 iusques en l'an 1655 [and] Cause pour laquelle les Interessez de la Compagnie n'ont pas fait de Grands Profits à Madagascar. Paris, France: Pierre L'Amy, [24] + 384 + [18] + 42 + [2] pp., 8 folding pls., 5 folding maps.

Flacourt, E. de. 1661. Histoire de la Grande Isle Madagascar. Avec une Relation de ce qui s'est Passé en l'Isle Madagascar depuis l'Année 1642 iusques en 1660. Troyes, France: Nicolas Oudot, & se vendent and Paris, France: Pierre L'Amy, [23] + 471 pp., 8 folding pls., 5 folding maps.

Frik, C. 1692. Ost-Indianische Räysen und Krieges-Dienste, oder eine ausführliche Beschreibung was sich Zeit solcher, nemlich von A.1680 biss A.1685 so zur See, als zu Land. Ulm, Germany: Matthaeo Wagner, x + 298 + [14] pp.

Gesner, K. 1554. Conradi Gesneri Historiae Animalium Liber II de Quadrupedibus Oviparis. Adjectae sunt Diam Novai Aliquot Quadrupedum Figurae, in Primo Librode Quadrupedibus Viviparis Desideratae, cum Descriptionibus Plerorumque Brevissimis item Oviparorum Quorundam Apprendiae. Tiguri [Zürich], Switzerland: C. Frischoverius, [8] + 110 pp.

Haines, S. 2000. Slithy Toves, Illustrated Herpetological Books at the University of Kansas in Pictures and Conversations. Ithaca, NY: Society for the Study of Amphibians and Reptiles, vii + 180 pp.

Hill, J. 1752. An History of Animals. Containing Descriptions of the Birds, Beasts, Fishes, and Insects, of the Several Parts of the World; and Including Accounts of the Several Classes of Animalcules, Visible only by the Assistance of Microscopes. London, UK: Thomas Osborne, [8] + 584 + [4] pp.

Hondius, J. 1652. Klare Bescryving van Cabo de Bona Esperanca; med de by-gelegen Kust naar Angola toe, van Cabo Negro af. Amsterdam, The Netherlands: Jodocus Hondius, 33 pp.

Jonstonus, J. 1657. Historiae naturalis de quadrupedibus libri : cum aeneis figures. Amstelodami [Amsterdam], The Netherlands: Ioannem Iacobi Fil. Schipper, 6 + [2] + 164 pp., 80 pls.

Kolb, P. 1719. Caput Bonae Spei Hodiernum, das ist: vollständige Beschreibung des africanischen Vorgebürges der Guten Hofnung. [title given on alternative title page as: Reise an das Capo de Bonne Esperance, oder das africanische Vorgebürge der Guten Hofnung: nebst einer ausführlichen Beschreibung desselben in dreyen Theilen abgefasset]. Nürnberg, Germany: Peter Conrad Monath, portrait, frontispiece, [20] + 846 + [80] + [2] pp., folding map, 23 pls.

Kolb, P. 1727. Naaukeurige en Uitvoerige Beschryving van Kaap de Goede Hoop; Behelzende een Zeer Omstandig Verhaal van den Tegenwoordigen Toestant van dat Vermaarde Gewest, deszelfs Gelegenheit, haven, Sterkte, Regerings-vorm, Uitgestrektheit, en Onlangs Ontdekte Aanleggende Landen; Nevens een Geleerde Beschryving van het Klimaat en Aart van dat Landschap; van

deszelfs Dieren, Visschen, Vogelen, Planten, Kruiden; Mitgaders Verscheide Wonderen der Natuur, daar te Lande Ontdekt. 2 Vols. Amsterdam, The Netherlands: Balthazar Lakeman, [ii] + [xii] + 529 + [2] pp.; [ii] + 449 + [87] pp., 46 pls., portrait, 6 folding maps.

Kolb, P. 1731. The Present State of the Cape of Good Hope: or, A Particular Account of the Several Nations of the Hottentots: Their Religion, Government, Laws, Customs, Ceremonies, and Opinions; Their Art of War, Professions, Language, Genius, &c. Together with a Short Account of the Dutch settlement at the Cape. Written originally in High German, by Peter Kolben. Done into English from the original by Mr. Medley. 2 Vols. London, UK: W. Innys, xviii + [viii] + 365 pp., portrait, 17 pls. ; xviii + [ii] + 363 + [1] pp., frontispiece, 10 pls., folding map, plan.

Kolb, P. 1741-1743. Description du Cap de Bonne-Esperance : Où l'on Trouve tout ce qui Concerne l'Histoire-Naturelle du Pays, la Religion, les Moeurs & les Usages des Hottentots, et l'Etablissement des Hollandois, Tirée des Memoires de Mr. Pierre Kolbe Dressés Pendant un Séjour de Dix Années dans cette Colonie, où il avoit été Envoyé pour faire des Observations Astronomiques & Physiques. 3 vols. Amsterdam, The Netherlands: Jean Catuffe [not seen by authors].

L'Honoré Naber, S. P. (ed.). 1912. Beschryvinghe ende historische verhael van het Gout koninckrijck van Gunea anders de Gout-Custe de Mina genaemt liggende in het deel van Africa door P. de Marees, 's-Gravenhage, The Netherlands: M. Nijhoff, lxxvi + 314 pp., 20 leaves pls., folding map.

Marggraf [or Marcgrave], G. 1648. Historiæ Rerum Naturalium Brasiliæ. In: Piso, W. Historia Naturalis Brasiliæ, Auspicio et Beneficio Illustriss I. Mauritii com. Nassau Illius Provinciæ et Maris summi Præfecti Adornata: In qua non tantum Plantæ et Animalia, sed et Indigenarum Morbid, Ingenia et Mores Describuntur et Iconibus supra Quingentas Illustrantur. Lugdnun. Batavorum [= Leiden], The Netherlands: Franciscum Hackium et Amstelodami [Amsterdam], The Netherlands: Lud. Elzevirium, [8] + 293 + [7] pp.

Merklein, J.J. 1672. Journal, oder Beschreibung alles desjenigen, was sich auf währender unserer neunjährigen Reise im Dienst der Vereinigten heoctroyerten Niederländischen Ost-Indianischen Compagnie besonders in denselbigen Ländern täglich begeben und zu getragen. In: Merklein, J.J. Wahrhaftige Beschreibungen dreyer mächtigen Königreiche, Japan, Siam und Corea. Nürnberg, Germany: Michael und Joh. Friedrich Endters, pp. 900-1148.

Nieuhof, J. 1682. Zee en Lant-Reize, door Verscheide Gewesten van Oostindien, Behelzende veele Zeldzaame en Wonderlijke Voorvallen en Geschiedenissen. Amsterdam, The Netherlands: Jacob van Meurs, [4] + 308 + [4] pp.

Raven-Hart, R. 1967. Before Van Riebeeck, Callers at South Africa from 1488 to 1652. Cape Town, South Africa: C. Struik (Pty.) Ltd., frontispiece, [5] + 216 pp., 18 pls.

Rookmaaker, L.C. 1989. The Zoological Exploration of Southern Africa 1650-1790. Rotterdam, The Netherlands: A. A. Balkema, xii + 368 pp.

Schneider, J.G. 1783. Allgemeine Naturgeschichte der Schildkröten, nebst einem systematischen Ver'eichnisse der einzelnen Arten.und zei Kupfern. Leipzig, Germany: Johan Gotfried Müllerschen Buchhandlung, xlviii + 364 + [1] pp., 2 pls.

Van Dantzig, A. and Jones, A. (eds./transl.). 1987. Pieter de Marees. Description and Historical Account of the Gold Kingdom of Guinea (1602). Oxford: The British Academy/Oxford University Press, ix + 272 pp.

Walbaum, J.J. 1782. Chelonographia oder Beschreibung einiger Schildkröten nach natürlichen Urbildern. Lübeck und Leipzig, Germany: Johann Friedrich Gleditsch, [8] + 132 pp., 1 pl.

Wurffbain, J.S. 1686. Vierzehen jährige Ost-Indianische Krieg- und Ober-Kaufmanns-Dienste, in einem richtig geführten Journal- und Tage-Buch. Nürnberg, Germany: J.G. Endter, [40] + 265 pp.

© International Society for the History and Bibliography of Herpetology, ISHBH
*Bibliotheca Herpetologica*, Vol. 6(2): 11–15, 2006

# The Tortoise and the Tulip – *Testudo graeca ibera* and Osman Hamdi's "The Tortoise Trainer"

MATTHEW P. BETTELHEIM[1] AND ERTAN TASKAVAK[2]
[1] 909 Hough Avenue, Apt. C, Lafayette, California 94549 USA, blackfish@nasw.org
[2] Ege University, Faculty of Fisheries, Department of Basic Science,
Izmir, 35100 Turkey, ertantaskavak@yahoo.com

On December 12, 2004, Ottoman artist Osman Hamdi Bey's painting, "The Tortoise Trainer," was auctioned to the Suna-Inan Kiraç Foundation for 5 trillion Turkish lira ($3.5 million). The sale price set a record as the highest price paid for a painting by a Turkish artist and earned the painting no small amount of publicity. Given that "The Tortoise Trainer" has become one of Osman Hamdi's more popular works, it is perhaps surprising that while a great deal of attention has been concentrated on identifying the painting's symbolism, little attention has been paid to identifying the historic significance of the painting's namesake: the Mediterranean spur-thighed tortoise (*Testudo graeca ibera* Pallas 1814).

According to newspaper reports in the *Middle East Times* (2004) and *The Daily Star* (2004), in 1992 art collector and Iktisat Bank businessman Erol Aksoy purchased the painting, previously held in private collections, at auction for a record $700,000. (At the time, this too was a record price for a Turkish painting.) The painting was displayed at the Turkish Economics Bank until March of 2001, when the Savings Deposit Insurance Fund TMSF seized Aksoy's collection of 332 paintings and 22 pieces of Iznik china after Aksoy's bank filed for bankruptcy. In the December 2004 auction, TMSF's representative, Antik Co. (Antik A.ª), set the opening bid for "The Tortoise Trainer" at 1.9 trillion Turkish lira. The Suna-Ynan Kiraç Foundation outbid the Istanbul Modern Arts Museum, purchasing the painting for 5 trillion Turkish lira in what was later described as a "heart-stopping auction." Today, "The Tortoise Trainer" is currently on display at the Pera Museum (funded by the Suna-Ynan Kiraç Foundation) in Istanbul as part of the "Portraits from the Empire" exhibit of Orientalist paintings.

"The Tortoise Trainer" (oil on canvas; 221.5 x 120 cm), originally titled "Kaplumbaƌa Terbiyecisi" in the artist's native Turkish, was completed by Osman Hamdi in 1906. (Mistranslations of the title have mistakenly interchanged the words tortoise/turtle and trainer/breeder/tamer.) According to the Museum's catalog (see also Germaner and Inankur 2002), the painting depicts a dervish (a self-portrait of Osman Hamdi himself, a device he used often) dressed in a mismatched accumulation of traditional dervish attire: an *arakyye*, a soft felt cap tied with a muslin *destar*; yellow morocco slippers; and a red decorated robe. In his hands, clasped behind his back, the dervish holds a *ney* (a reed flute), while a *nakkare* (a kettledrum) hangs over his left shoulder attached to a plectrum (or drumsticks). The dervish stands at an upper-story window in a chamber of the Yeºil Mosque at Bursa. Bowed slightly at the waist, he is overseeing three tortoises as they feed on leaves, while behind him two more tortoises approach from the shadows (see Cover and Fig. 1).

To date, the tortoise depicted in "The Tortoise Trainer" has not been officially recognized or identified to species based on the Pera Museum's catalogs (R. Bariº Kibris, personal communication). Two tortoise species, *Testudo graeca* Linnaeus 1758 and *Testudo hermanni* Gmelin 1789, are native to Turkey. Although an occurrence of *Testudo marginata* Schoepff 1795 was reported by Brinckmeier *et al* (1989), more recent studies (Taskavak *et al*. 2001, Türkozan *et al*. 2001) have since eliminated the marginated tortoise from the Turkish herpetofauna. The Herman's tortoise, *T. hermanni*, is restricted

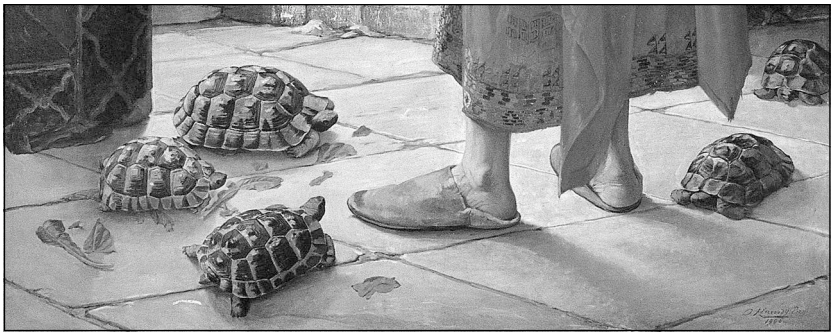


***Fig. 1.*** *Until now, the tortoise depicted in "The Tortoise Trainer" – the Mediterranean spur-thighed tortoise (*Testudo graeca ibera*) – has not been officially recognized or identified to species based on the Pera Museum's catalogs. In this detail, three Mediterranean spur-thighed tortoises (left) feed on leaves at the dervish's feet, as two more tortoises approach from behind (right). Courtesy the collection of Suna and Inan Kiraç Foundation-Pera Museum.*

to Thrace, the European part of Turkey, and is represented by the eastern race *T. h. boettgeri*. Regarding the *Testudo graeca* complex, it is still a speculative taxon, and the taxonomic diversity of this group is not understood well. According to the substantiated data, there are five subspecies (as we consider here) of *Testudo graeca*. The most common subspecies is *Testudo graeca ibera* (Fig. 2), which inhabits almost all of the Thracean and Anatolian parts of Turkey, except for the easternmost Black Sea region of Turkey. While *Testudo graeca anamurensis* is found in Antakya and Side, *Testudo graeca armeniaca* is restricted to Aƌry and Dogu Beyazit. Perälä (1996) described *Testudo graeca antakyensis* from Antakya, the easternmost Mediterranean coast of Turkey. The reported occurrence of the Zagros Mountain tortoise, *Testudo graeca perses* (described as a separate species, *Testudo perses*, by Perälä in 2002) in Turkey was approved by Türkozan *et al.* (2004) from Hakkari. Further evidence is needed to substantiate the record of *Testudo graeca terrestris* from Gaziantep. However, more recent works (*e.g.* Danilov and Milto 2004) have restricted *Testudo graeca ibera* to the Kural Valley, Georgia, and therefore, in that taxonomy, no name is currently available for the Anatolian population sensu stricto. Actually, the systematics of the *Testudo graeca* complex is still waiting a complete revision.

Several key characteristics help to distinguish *Testudo graeca ibera* (sensu lato) from *T. hermanni*. (A key to the *Testudo* complex is provided in Ernst and Barbour 1989). *T. g. ibera* is a medium sized tortoise, generally 25-26 cm in length, with a relatively broad, low, and comparably smooth carapace, and a hinged plastron. The carapace is typically pale yellowish or brownish yellow with dark brown or black spots, variable in size and shape, which are especially found densely along the vertebral region. The plastron is typically pale yellowish or tan marked with black to dark-brown blotches to a ground color of dark brownish or black. There are a total of eleven pairs of marginal scutes, and the posterior marginal scutes exhibit expansion, but little flaring. The widths of the costal and vertebral scutes are greater than their lengths. Typically, the tail shield (the supracaudal scute) is undivided, and its posterior edge is slightly folded ventrally in adult males. *T. g. ibera*'s tail is missing the enlarged, horny scale typical of *T. hermanni*, and there is always a clearly recognizable spur, or tubercle, on the back of each thigh. Based on these characteristics described above, there is little doubt that Osman Hamdi's tortoise species is that of the Mediterranean spur-thighed tortoise (*Testudo graeca ibera*).

Osman Hamdi (1842-1910) was an accomplished painter, archaeologist, and museum curator (Fig. 3). Although his father sent him to Paris in 1857 to study Law, in time Osman Hamdi instead found himself a student of French Orientalist artists Jean-Léon Gérôme (1824 - 1904) and Gustave Boulanger (1824 - 1888). There he honed his skills, showing three paint-

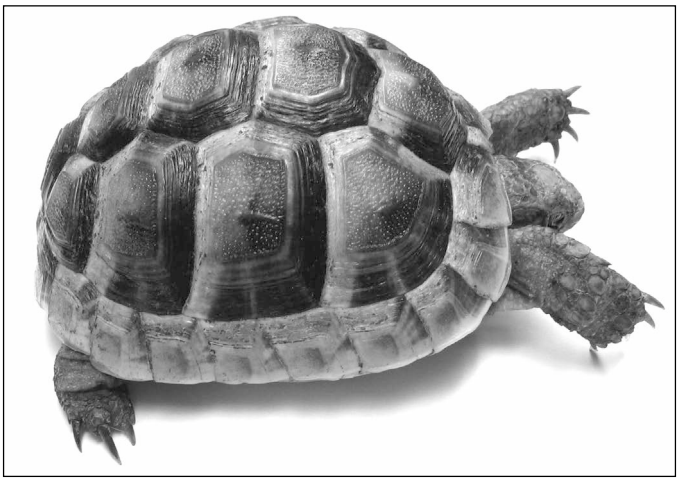


***Fig. 2.*** *Photograph of the Mediterranean spur-thighed tortoise (*Testudo graeca ibera *Pallas 1814). Courtesy Ertan Taskavak.*

ings in the 1867 Paris International Exhibit. Leaving Paris in 1869, Osman Hamdi took several administrative positions until he helped found Istanbul's Archaeological Museum (then the *Müze-i Hümayun*, or Ottoman Imperial Museum) at the Topkapi Palace (*Topkapi Sarayi*; also known to some as the "Grand Seraglio"), where he was appointed Director in 1881. Among Osman Hamdi's many accomplishments were his founding and opening of the School of Fine Arts (*Sanayi-I Nefise Mektebi*; now the State Academy of Fine Arts) in 1883, his establishment of the Law of Conservation of Antiquities (*Asâr-y Atika Nizamnamesi*) in 1884 to protect and document Turkey's antiquities, and his 1887 excavation of the Alexander Sarcophagus in Sidon, Lebanon, which depicts Alexander the Great battling the Persian army.

It is through Osman Hamdi's post at the Topkapi Palace that he was most likely introduced to the role the Mediterranean spur-thighed tortoise played in Turkish history. In 1703, Sultan Ahmed III came to power in the Ottoman Empire, bringing with him his adoration, or, more accurately, his obsession with the tulip. Although the tulip had been favored as a flower in the earlier years of the Ottoman Empire, it was during Ahmed's reign from 1703 to 1730 that "tulipomania" took hold, much as it had the world round (see Dash 1999). In later years, Turkish historian Ahmed Refik named Sultan Ahmed III's reign the *Lale Devri*, or the Tulip Period (also, the Tulip Era or the Reign of the Tulip) (Lewis 1971, Kinross 1977, Palmer 1992, Goodwin 1998, Dash 1999).

Sultan Ahmed III's celebrated tulips were planted throughout the gardens of the Topkapi Palace. Each tulip bed, row upon row, was devoted to a different variety. Such was their obsession that those tulips that broke the soil blind were replaced with flowers in bottles (Goodwin 1998). Every April, a two-day spring celebration known as the Tulip Festival or Tulip Fête was planned to coincide with the full moon. The gardens at the Topkapi Palace were lavished with accoutrements to accentuate and draw attention to the tulips. Throughout the gardens, caged canaries and rare singing birds hung from tree branches, and trellises and shelves featured vases – each of a different shape or color – erupting in tulips and other flowers. Colored glass lamps and glass globes filled with colored liquids flickered and shone, their light reflected by mirrors scattered throughout the grounds. And through the flowerbeds trod tortoises (referred to also as turtles), burdened with slow burning candles, candelabras, or small oil lamps atop their shells to illuminate the Ottoman Empire's beloved tulip (Lewis 1971, Kinross 1977, Palmer 1992, Goodwin 1998, Dash 1999).

There has been much speculation as to why Osman Hamdi chose the tortoise as the subject of this painting. In their analysis of "The Tortoise Trainer," for example, curators at the Eczacibasi Virtual Museum (www.sanalmuze.org) suggest that Osman Hamdi might have been familiar with the practice of taking turtles for walks in the streets of Paris. "Around 1840

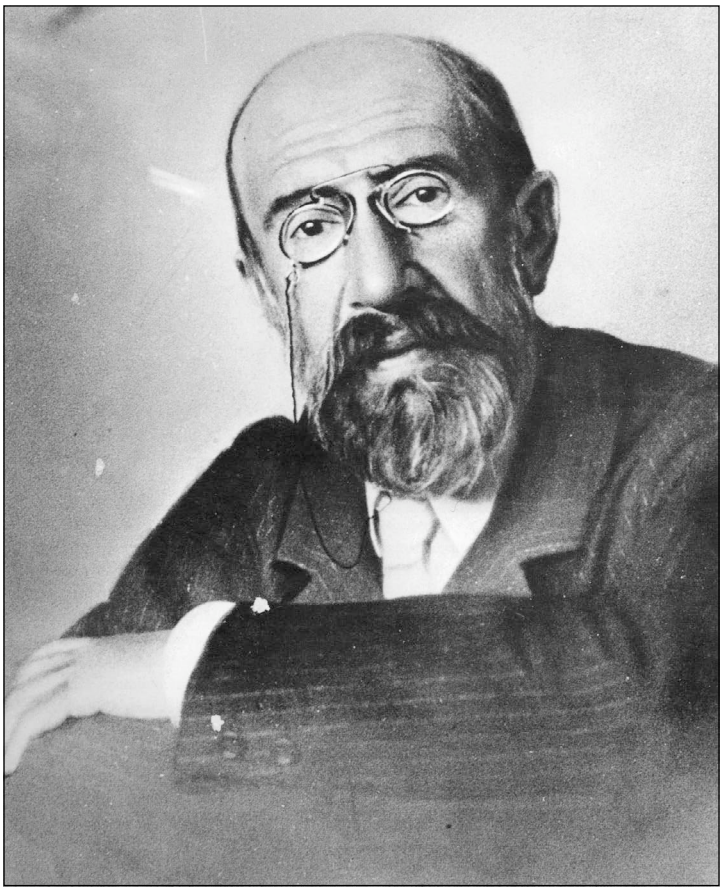


***Fig. 3.*** *Portrait of Osman Hamdi Bey (1842-1910), accomplished painter, archaeologist, and museum curator, renowned in part for his 1906 "The Tortoise Trainer." Courtesy the collection of Suna and Inan Kiraç Foundation-Pera Museum.*

it was briefly fashionable [for *flâneurs* (idlers or loungers)] to take turtles for a walk in the arcades. The *flâneurs* liked to have the turtles set the pace for them" (Benjamin 1968; Note 6).

The Eczacibasi Virtual Museum's Hasim Nur Gürel instead sees the tortoise as a "merciless, hopeless satire," an allegory between the historic tortoises as "palace-employees" of the Topkapi Palace and Osman Hamdi's contemporary subordinates. Osman Hamdi – Director, intellectual – is looking down upon three tortoises whose heads are bowed in the process of eating, as two more tortoises lurk in the shadows.

Art history professors Semra Germaner and Zeynep Inankur see "The Tortoise Trainer" as a metaphor for the hurdles Osman Hamdi had overcome: founding the Archaeological Museum and School of Fine Arts, and passing the Law of Conservation of Antiquities. The dervish, represented by Osman Hamdi, is faced with the challenge of training the tortoises before him, "this creature with a thick shell and sluggish blood." Armed only with musical instruments, symbolizing Osman Hamdi's art, the thoughtful dervish approaches the tortoises with patience instead of force (Germaner and Inankur 2002).

The Pera Museum's catalogs are more or less silent on the matter, admitting only that the dervish intends to train the tortoises "not by force, but… through art." And it is through Osman Hamdi's art that this piece of history that so neatly entangles the tortoise and the tulip is remembered. Likewise, it is through his art that we are re-introduced to this tortoise that, despite its title role in this renowned painting, has gone otherwise unrecognized. That the Mediterranean spur-thighed tortoise is Turkey's own is just another reason to celebrate the value of this priceless work of art.

**Acknowledgements**

This work could not have been undertaken without the help of R. Bariº Kibris, Curator of Orientalist Painting at the Pera Museum;

Christopher Thayer, who first brought "The Tortoise Trainer" to Bettelheim's attention; and Roger Bour, who reviewed an early draft of this manuscript.

**References**

Benjamin, Walter. 1968. Illuminations. Trans. Harry Zohn. Harcourt, Brace & World, Inc., New York. 280 pp.

Brinckmeier, C., F. Bode, and A. Hampe. 1989. First record of the Marginated Tortoise, *Testudo marginata* in Turkey. Zoology in the Middle East. 3: 47-48.

Danilov, Igor G., and Konstantin D. Milto. 2004. *Testudo* [*graeca*] *ibera* Pallas, 1814. Manouria 7(22): 23-24.

Dash, Mike. 1999. Tulipomania: The Story of the World's Most Coveted Flower and the Extraordinary Passions It Aroused. Three Rivers Press, New York. 273 pp.

Eczacyba_y Virtual Museum. "Osman Hamdi Bey Iconographic Texts - The Turtle Tamer, 1906" (Slides 55-59). Eczacyba_y Virtual Museum (www.sanalmuze.org/sergilereng/contentxy.php?sergi=682&ic=75&pg=0)

Ernst, Carl H. and Roger W. Barbour. 1989. Turtles of the World. Smithsonian Institution Press, Washington. 313 pp.

Germaner, Semra and Zeynep Ynankur. 2002. Constantinople and the Orientalists. Yºbank. 330 pp.

Goodwin, Jason. 1998. Lords of the Horizons: A History of the Ottoman Empire. Henry Holt and Company, New York. 352 pp.

Gürel, Haºim Nur. "Osman Hamdi Bey and His Iconography." Eczacyba y Virtual Museum (www.sanalmuze.orgarastirarakogrenmekeng/osmanhamdi.htm).

Kinross, Lord (John Patrick Douglas Balfour). 1977. The Ottomas Centuries: The Rise and Fall of the Turkish Empire. William Morrow and Company, Inc., New York. 638 pp.

Lewis, Raphaela. 1971. Everyday Life in Ottoman Turkey. G.P. Putnam's Sons, New York. 206 pp.

Palmer, Alan. 1992. The Decline and Fall of the Ottoman Empire. M. Evans and Company, Inc., New York. 306 pp.

Perälä., J. 1996. Tortoises in Southern Turkey. In Kanza, M., J. Perl, and J. Vikberg. (Eds.). Herpetokonressi I. The Official Congress Publication. The Herpetological Society of Finland: 14-26.

Taskavak E, O. Türkozan, and Y. Kumlutaº. 2001. Some Investigations On The Taxonomic Status Of *Testudo Graeca* From The Aegean And Mediterranean Regions Of Turkey. International Congress on *Testudo Genus* Gonfaron-Hyères-FRANCE. March 7-10, 2001.

Türkozan O, Y. Kumlutaº, and Ç. Ilgaz. 2001. On the Possible Occurrence of the Marginated Tortoise, *Testudo marginata*, in Turkey. Chelonian Conservation and Biology. 4(1): 208-210.

Türkozan O, K. Olgun, E. Taºkavak, and F. Kiremit. 2004. On the Occurrence of the Zagros Mountain Tortoise, *Testudo perses*, Perala 2002 in Turkey. Russian Journal of Herpetology. 11(2): 150-154.

"Turtle Trainer" Fetches Record $3.5mn in Art Auction." *Middle East Times* 13 Dec. 2004.

"Turtle Trainer" Fetches Record $3.5 Million." *The Daily Star* 14 Dec. 2004.

© International Society for the History and Bibliography of Herpetology, ISHBH
*Bibliotheca Herpetologica*, Vol. 6(2): 16–20, 2006

# Specimens from the Second Collection of Albertus Seba in Poland: the Natural History Cabinet of Anna Jabłonowska (1728-1800)

PIOTR DASZKIEWICZ[1] AND AARON M. BAUER[2]
[1]USM Inventaire et suivi de la Biodiversité, Département Écologie et Gestion de la Biodiversité, Muséum National d'Histoire Naturelle, 57, Rue Cuvier 75005 Paris, France, piotrdas@mnhn.fr
[2](Corresponding Author) Department of Biology, Villanova University, 800 Lancaster Avenue, Villanova, PA 19085, USA, aaron.bauer@villanova.edu, Phone: +1-610-519-4857, Fax: +1-610-519-7863

Albertus Seba (1665–1736) was a Dutch apothecary and businessman, who assembled perhaps the greatest natural history cabinet of his time. In 1717 Seba sold his first collection to Peter the Great of Russia (Engel 1961). A few parts of this collection, which served as the foundation of Peter's Kunstkammer, have survived and are present in the Zoological Institute of Russian Academy of Sciences (Juriev 1981). Seba rebuilt an even larger second collection, which formed the basis for his sumptuously illustrated four volume work, the so-called *Thesaurus* (Seba, 1734-1765), and was eventually sold in 1752, 16 years after Seba's death (Anonymous 1752). Although much of the material was purchased by natural history dealers or the agents of private collectors, a substantial portion of it eventually reached national or royal natural history museums across Europe. Material from this second sale survives today in the collections of the Zoological Institute of the Russian Academy of Sciences in St. Petersburg, the Zoological Museum in Amsterdam, the Natural History Museum (formerly British Museum of Natural History) in London, Naturalis, the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie) in Leiden, and the Muséum National d'Histoire Naturelle in Paris, amongst others (Boeseman 1970; Juriev 1981; Adler 1989; Thireau et al. 1998). Engel (1961) and Boeseman (1970) traced the dispersal of Seba's second collection to these and other destinations, but they did not record the eventual movement of any of the collection to Poland. We here present hitherto overlooked information that substantiates that some of Seba's collection, including herpetological specimens, was held in the natural history cabinet of Princess Anna Jabłonowska (1728-1800) during the late 18th century.

Princess Anna Jabłonowska (Fig. 1) was one of the most powerful and influential women of 18th century Europe. She was a member of one of the larger and richer families of the powerful Polish state and is remembered chiefly for her political and economic activities. Following the death of her husband, Voivode Jan Kajetan Jabłonowska of Bracław, in 1764 she served (1768-1772) as an unofficial member of the political and military union of Polish nobility, The Confederation of Bar. Later she supported the insurrection of Tadeusz Kościuszko and in 1794-95 she was active in military opposition to Russian control in Poland. On the economic front, she was progressive, implementing various social and health care reforms on her extensive properties (Jabłonowska 1786-87; Miszta-Chorobińska 1978). Jabłonowska was also influential with respect to agriculture and forestry and she translated a number of works on the practical aspects of nature from English and French to Polish (Wójcik 1987; Wołek and Wójcik 2001).

Jabłonowska's interests extended broadly to the natural sciences and, like many wealthy nobles of the time, she amassed a private cabinet of natural curiosities. This cabinet was considered one of more important natural history collections in Europe in the 18th Century. It was undoubtedly the largest such collection in Poland during this period (Dubois de Jancigny

1778) and only the collection of Jakob Theodor Klein (1685-1759), originator of the term herpetology, in Gdansk may have been comparable in scope and quality (Wójcik 1970).

Despite the fact that several naturalists, including Aleksander Sapieha (1773-1812), Jan Krzysztof Kluk (1739-1796), and Stanisław Ładowski (1738-1798), worked in Jabłonowska's collection and library (Wójcik 1970) and that it was visited by King Stanisław August Poniatowski (Wołek and Wójcik 2001), relatively little is known about the composition of her cabinet. This is due mainly to the lack of primary sources, such as a first-hand description or a catalogue. Virtually all information about this collection comes from secondary sources, especially memoirs of the time, family correspondence, and particularly the writings of travellers such as Johann Bernouilli (1779-1780, *fide* Fedorowicz 1968 and Wójcik 1970) or of naturalists, such as Wasyl Siewergin (Wójcik 1970; Wołek and Wójcik 2001), who later took part in the purchase of the collection.

***Fig. 1.*** *Only known life portrait of Anna Jabłonowska from the II L.O. im ksieznej Anny Jabłonowskiej (II Princess Anna Jabłonowska High School) in Białystok, Poland.*

Bernouilli did not visit Jabłonowska's cabinet himself but he obtained his information from a reliable source. Anna Jabłonowska maintained very good relations with the family of Daniel Gralath (1708-1767), a rich merchant from Gdansk and the son-in-law of Jakob Theodor Klein. Gralath, himself an amateur physicist, was one of the founders of the Societas Physico-Experimentalis, an important learned society that developed and thrived thanks to the financial assistance of Józef Jabłonowski, Anna's father. In a letter (September 29, 1779) to Bernouilli, Renata Wilhelmina Gralath stated that "the cabinet of the princess deserves the attention of a specialist. The princess spends much of her effort and money to supplement it. Last year several cases of containers of natural history curiosities were sent from the Netherlands for her collection. The specimens sent this year are still at home. Our library resembles rather a museum since I decorated it with more than 180 jars with quadrupeds, fish and snakes in alcohol." (cited after Wójcik 1970).

Gdansk was probably used as a trans-shipment point for natural history specimens destined for Jabłonowska's properties at Kock (near Lublin) and especially Siemiatycze (near the present border with Belarus). As an important port, Gdansk at this time was one of more important commercial centers for natural history specimens. This is reflected by the cabinet of

Christophe Gottwald, which included one of the earliest collections of chelonians and was purchased by Peter the Great (Juriev 1976), and the Dresden collection of King August II (Eilenburger 1755), both of which originated in major part from this town, as well as by the cabinet of Klein.

In Siemiatycze Jabłonowska's collection occupied five large rooms (Wójcik 1970). Many contemporary scientists worked on this collection, including the two Polish naturalists Stanisław Ładowski and Jan Krzysztof Kluk. In 1799 Stanisław Staszic visited Jabłonowska's cabinet and was able to compare it with others he had seen during his travels in Germany, Italy and France. Staszic was one of the fathers of Polish geology, but was also broadly trained in zoology and botany by Buffon, Daubenton, Brisson, and Haüy in Paris. In his journal he said of the Siemiatycze collection: "a cabinet of natural history is in the palace. The collection, large and rare, was made by the famous Seba [*Saba* in the original] and bought by Jabłonowska. The collection of amphibians and reptiles of the world [in the original *amphibians of the world*, but at the time the term 'amphibian' frequently signified both amphibians and reptiles] is rather numerous" (Leśniewski 1931).

Unfortunately, Staszic's reference provides the only information about Seba specimens in Anna Jabłonowska's collection. Where or when these specimens were bought is unknown. It is obvious that the collection did not come from Seba himself, as Jabłonowska was only eight years old at the time of his death. It is probable that these specimens originated in the sale of Seba's cabinet on April 11, 1752 (when she was 24 years old). It is likely that Jabłonowska obtained the material indirectly, probably through one of the Dutch natural history retailers who attended the auction. However, if Seba's material was the same noted by Renata Gralath in his letter to Bernouilli in 1779, it is quite possible that it had passed through other hands before finding its way to Poland.

Following Jabłonowska's death, her heirs, who were in debt, sold her natural history cabinet to Tsar Alexander I for the sum of 50,000 guldens (approximately equivalent to 2006 values of $454,000 or €355,000 in terms of purchasing power). The scientists W. Siewiergin and A. Sewastionow from St. Petersburg and a French curator, Richard, spent six weeks in Siemiatycze preparing 101 large packages for shipment. Siewiergin noticed among other specimens "the many amphibians and reptiles including vipers" (Wójcik 1970). The collection left Siemiatycze on April 15, 1802 and required 15 carriages with four horses each to transport it. The Tsar subsequently offered the collection to the University of Moscow, although a part of the collection was sent to St. Petersburg where, in 1875, the herbarium of Jan Krzysztof Kluk (1739-1796), which had originated in Siemiatycze was rediscovered (Rostafiński 1916). However, the majority of the collection is believed to have been destroyed during the burning of Moscow during the Napoleonic wars (Wójcik 1987) and it is highly unlikely that any of Seba's specimens that passed through Jabłonowska's collection have survived. Nonetheless, Poland may be added to the list of countries through which parts of Seba's natural history cabinet passed (Boeseman 1970), emphasizing the broad scale of influence of this great collector on natural history in 18th century Europe.

**Acknowledgements**

We thank M. Pawel Krysztofiak (II L.O. im ksieznej Anny Jabłonowskiej) [II Princess Anna Jabłonowska High School ] and Anna Berezaf (Biuro Promocji Powiatu Siemiatyckiego) [Office of Promotion of Siemiatycze] for providing the portrait of Anna Jabłonowska.

**References**

Adler, K. 1989. Herpetologists of the past. Pp. 5–141 in Adler, K. (ed.), Contributions to the history of herpetology. Society for the Study of Amphibians and Reptiles, Oxford, Ohio.

Anonymous. 1752. Catalogus van de uitmuntende cabinetten met allerley soorten van ongemeene schoone gepolyste hoorns, dubletschelpen, coraal-en zeegewassen; beneveus het zeldzame en vermaarde cabinet van gediertens in flessen en naturalia, en veele raare anatomische preparata van den Professor Ruysch: als mede een verzameling van diverse mineralen versteende zaaken, agaate boomsteenen, edele gesteentens, en verscheide andere rariteiten. Met veel moeiteen kosten in een reekd van jaaren vergadert. En nagelaten door wijlen der Heere Albertus Seba, Lid van de Keizerlijke Leopoldische Carolinische en Koningl. Englische Societeit der Wetenschappen, als ook der Academie van Bolonien. Th. Sluyzer, J. Schut en N. Blinkvliet, Amsterdam. 1–51, 1–38, 1–18, 1–22.

Bernouilli, J. 1779-1780. Reisen durch Brandenburg, Pommern, Preussen, Curland und Pohlen in den Jahren 1777 und 1778, 2 vols. C. Fritsch, Leipzig.

Boeseman, M. 1970. The vicissitudes and dispersal of Albertus Seba's zoological specimens. Zoolologische Mededelingen, Leiden 44(13):177–206, 4 pls.

Dubois de Jancigny, J.-B. 1778. Essai sur l'histoire littéraire de Pologne : réflexions générales sur les progrès des sciences et des arts, histoire naturelle et géographie. G.J. Decker, Berlin. 566 pp.

Eilenburger, C.H. 1755. Description du cabinet roial de Dresde touchant l'histoire naturelle. G.C. Walther, Dresde et Leipsic. 101 pp.

Engel, H. 1961. The sale-catalogue of the cabinets of natural history of Albertus Seba (1752), a curious document from the period of the naturae curiosi. Bulletin of the Research Council of Israel 10B:119–131.

Fedorowicz, Z. 1968. Zoologia w Gdańsku w stuleciach XVII i XVIII [Zoology in the town of Gdansk in the XVII and XVIII centuries]. Zakład Narodowy imienia Ossolińskich Wydawnictwo (Instytut Zoologiczny Polskiej Akademii Nauk. Memorabilia Zoologica 19), Wrocław. 119 pp.

Jabłonowska, A. 1786-87. Ustawy powszechne dla dóbr moich rządców, 8 vols [General statutes for managers of my lands]. M. Gröll, Warszawa.

Juriev, K.P. 1976. Christopher Gottwald, his collection and book [in Russian]. Pp. 67–74 in Manuscripts and Rare Printed Books in Funds of the Library of the Russian Academy of Sciences. Leningrad.

Juriev, K.P. 1981. Albert Seba and his contribution to the development of herpetology [in Russian]. Pp. 109–120 in Ananjeva, N.B., and Borkin, L.J. (eds.), Proceedings of the Zoological Institute of the Academy of Sciences of the USSR 101.

Leśniewski, C. (ed.). 1931. Staszic, Stanisław (1755-1826). Dziennik podróży Stanisława Staszica 1789–1805 [Staszic, Stanisław (1755-1826). The travel journal of Stanisław Staszic, 1789–1805]. Wydawnictwo Polskiej Akademji Umiejętnósci, Kraków. lxvi + 515 pp.

Misztal-Chorobińska, A. 1978. Z dziejów Siemiatycz drugiej połowy XVIII: działalność reformatorska Anny Jabłonowskiej [From the history of Siemiatycze in the second half of the XVIII century: reforms of Anna Jabłonowska]. Prace Białostockiego Towarzystwa Naukowego. Nr. 24. Białystok. 183 pp.

Rostafiński, J. 1916. Księżna wojewodzina bracławska jako przyrodniczka [The Bracław County Princess as naturalist]. Kraków. 24 pp.

Seba, A. 1734-1765. Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physices historiam. Opus, cui, in hoc rerum genere, nullum par exstitit. Ex toto terrarum orbe collegit, digessit, descripsit, et depingendum curavit Albertus Seba, Etzela Oostfrisius, Academiæ Caesareæ Leopoldino Carolinæ Naturæ Curiosorum Collega Xenocrates dictus; Societatis Regiæ Anglicanæ, et Instituti Bononiensis, sodalis. Tomus I. 1734. Janssonio-Waesbergios, & J. Wetstenium, & Gul. Smith, Amstelaedami. [33], 1–178,

111 pls. Tomus II. 1735. Janssonio-Waesbergios, & J. Wetstenium, & Gul. Smith, Amstelaedami. [34], 1–154, 114 pls. Tomus III. 1759. Janssonio-Waesbergios, Amstelaedami. [26], 1–212, 118 pls. Tomus IV. 1765. H.C. Arksteum et H. Merkum, et Petrum Schouten, Amstelaedami. [4], i–viii, 1–42, 1–226, 108 pls.

Thireau, M., R. Sprackland and T. Sprackland. 1998. A report on Seba's specimens in the herpetological collection of the Muséum National d'Histoire Naturelle, Paris, and their status as Linnean types. The Linnean 13(4):38–45.

Wołek, A. and Z. Wójcik. 2001. Księżna Anna z Sapiehów Jabłonowska (1728-1800): w 200 rocznicę zgonu [The Princesss Anna Jabłonowska née Sapieha (1728-1800): On the two hundredth anniversary of her death]. Towarzystwo Przyjaciół Siemiatycz, Urzıd Miasta Siemiatycze, Siemiatycki Ośrodek Kultury. 328 pp.

Wójcik, Z. 1970. Aleksander Sapieha i warszawskie środowisko przyrodnicze końca XVIII i początku XIX [Aleksander Sapieha and the Warsaw community of naturalists at the end of the XVIII and the beginning of the XIX century]. Prace Muzeum Ziemii 15. Prace z zakresu Historii Nauk Geologicznych, Warszawa. 206 pp.

Wójcik, Z. 1987. Jabłonowska Anna Paulina p. 218 in Feliksiak, S. (ed). Słownik Biologów Polskich [Dictionary of Polish Biologists]. Instytut Historii Nauki, Oświaty i Techniki. Polska Akademia Nauk, Warszawa. 619 pp.

© International Society for the History and Bibliography of Herpetology, ISHBH
*Bibliotheca Herpetologica*, Vol. 6(2): 21–27, 2006

# Copyright in the 18th century: Linnaean drawings of *Coluber* in *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (1754) reproduced in Bonnaterre's *Tableau encyclopédique et méthodique, Ophiologie* (1790)

**László Krecsák**
Eötvös Loránd University, Department of Systematic Zoology and Ecology,
Pázmány P. s. 1/C, H-1117 Budapest, Hungary, lkrecsak@gmail.com

The present concept of copyright did not exist in the eighteenth century, thus authors of encyclopedias copied drawings from other works, often without reference to the original source. The purpose of this note is to provide an account of drawings of *Coluber* from Carl Linnaeus' *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (1754) and how some of them were reproduced by Abbé Pierre-Joseph Bonnaterre in *Tableau encyclopédique et méthodique des trois règnes de la nature, Ophiologie* (1790). The genus Coluber, as conceived by Linnaeus (1758), was the largest genus of the order Serpentes that also included the genera *Crotalus*, *Boa*, *Anguis*, *Amphisbæna* and *Cæcilia*.

The Swedish King Adolf Fredrik (1710-1771) and Queen Lovisa Ulrika (1720-1782) built up two large natural history cabinets, which they kept in their residential palaces, both located in the neighborhood of Stockholm. The King's museum at Ulriksdal contained the vertebrates while the Queen focused on more spectacular animals, such as mollusk shells, corals and butterflies, kept at Drottningholm (for a history of these collections see Lovén, 1887; Löwegren, 1952; Holm, 1957; Fernholm and Wheeler, 1983; Wallin, 1991; Wheeler, 1991).

The King and the Queen invited Carl Linnaeus (1707-1778) to arrange and catalogue the royal collections in 1751. Linnaeus started the same year and made several subsequent visits to the two palaces up to 1755 (Lovén, 1887). A selected account of the collection of the King was compiled by Linnaeus in two volumes with the title *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (Linnaeus, 1754, 1764a). The first volume (Linnaeus, 1754), in folio format, appeared with text in parallel columns of Latin and Swedish and illustrated with 33 copper-plate engravings. It was the first zoological work in which Linnaeus consistently used binominal nomenclature. The plates were drawn by Jean Eric Rehn and Olof von Dalin and engraved by Jacob Gillberg (Lovén, 1887). Snakes appeared on 21 of the plates and 43 taxa shown on these plates were then referred to the genus *Coluber*.

The second volume (Linnaeus, 1764a) was published in octavo format, written in Latin, without illustrations and issued together with an extensive account of the collection belonging to the Queen, entitled *Museum Ludovicæ Ulricæ Reginæ* (Linnaeus, 1764b).

All specimens that were depicted in the first volume became types for the Linnaean species when he subsequently described them in his 10th edition of Systema Naturae (Linnaeus, 1758). The collections were later assembled at Drottningholm and eventually sold to the State and divided between the Royal Academy of Sciences in Stockholm and the University of Uppsala. Many of the specimens are still extant. Because of the exceptional quality of the drawings many can be matched with the specimens now in the Zoological Museum of the University of Uppsala and the Swedish Museum of Natural History (Naturhistoriska riksmuseet) in Stockholm (Andersson, 1899; 1900; Lönnberg, 1896).

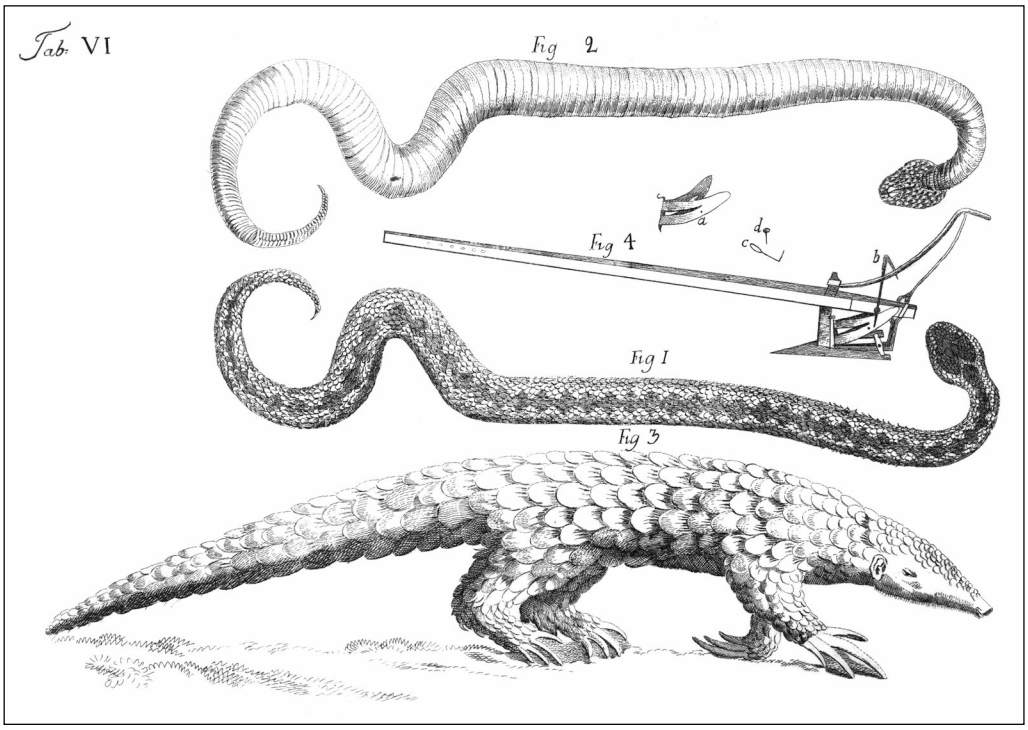



***Fig. 1.*** *Plate 6 found at the end of the October-December 1749 issue of* Kongl. Svenska Vetenskaps-Academiens Handlingar *depicting a Swedish snake Linnaeus described as* Äsping. *This specimen would subsequently become one of the syntypes of* Coluber chersea *Linnaeus, 1758.*

Linnaeus also catalogued as dissertations other collections donated to Uppsala University that contained snakes. One account dealt with the animals, many reptiles and amphibians, presumably all duplicates, which were donated already in 1745 by then Crown Prince Adolf Fredrik. The thesis entitled *Museum Adolpho-Fridericianum* was defended by Laurent Balk (Linnaeus, 1746). It was reprinted in 1749 in *Amoenitates Academicae* (Linnaeus, 1749a) with the running head *Museum Principis*.

Another illustrated work by Linnaeus should be mentioned (Linnaeus, 1749b), as Bonnaterre reproduced the figure (plate 10, fig. 10). Linnaeus published a paper, *Äsping*, in Swedish with a description of a reddish adder (later he would name it *Coluber chersea* – today in the synonymy of *Vipera berus* (Linnaeus, 1758). The description was accompanied by two drawings showing the specimen from a dorsal and a ventral view (Fig. 1). See Wahlgren (1999) for an abridged translation into English. The artist of the plate is not known but it can be assumed to be Jean Eric Rehn or Olof von Dalin, based on the technique used and the attention to detail. Bonnaterre named it *le Chersée* (Fig. 2).

Abbé Pierre Joseph Bonnaterre (1752-1804) was a priest, active in southwestern France and a naturalist. He contributed to the series *Tableau encyclopédique*... with the sections on fish, whales, amphibians and reptiles (those with legs), snakes and birds. The series is, as the title points out, an encyclopedic work but nonetheless many new taxa were described by Bonnaterre (David *et al.*, 2002). The section on snakes, *Ophiologie*, was published in 1790. It is a book in quarto containing about 124 pages of text and 43 engraved plates. Bonnaterre was one of the first French naturalists to depart from Buffon's school of animal classification and to

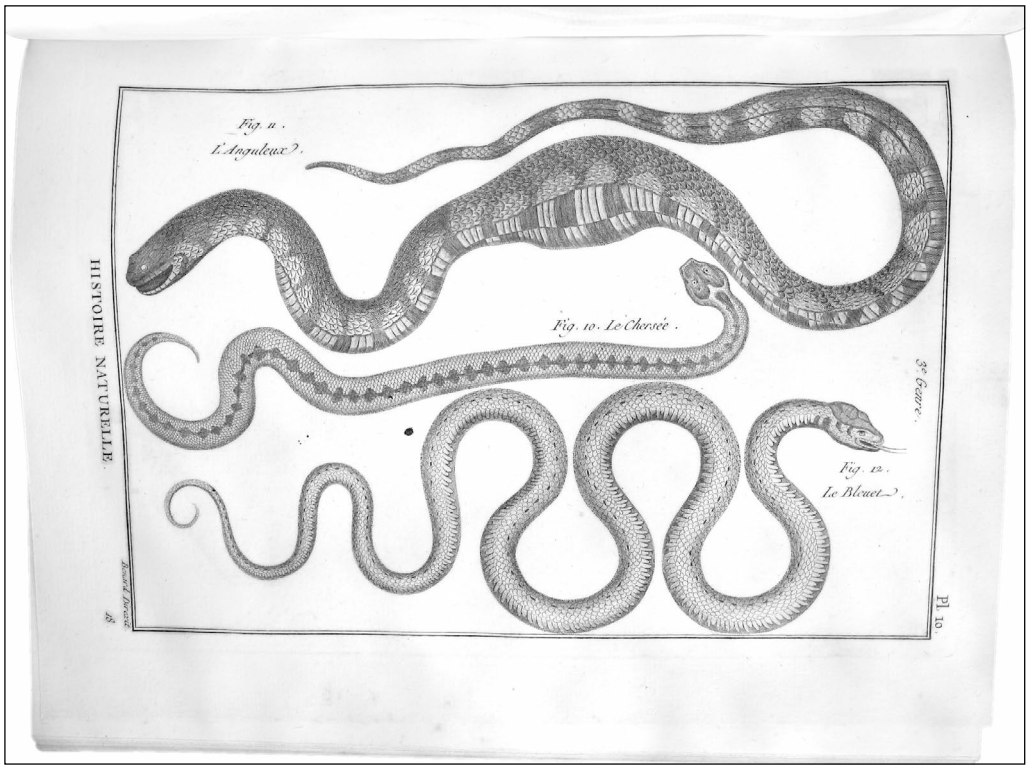



***Fig. 2.*** *Plate 10 from Bonnaterre's* Tableau encyclopédique et méthodique... Ophiologie *(1790).*

adopt Linnaeus' system of binominal taxa. Bonnaterre cited his sources truthfully but gave no specific references to his illustrations. Thus, he copied without change most of the drawings from *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (Linnaeus, 1754), Lacepède's *Histoire Naturelle des Serpens* (Lacepède, 1789) and several other sources. Here I will deal, in the format of a table, with those copied from Linnaeus, 1754. I intend to document and reflect on the connection between Lacepède and Bonnaterre in a separate paper. For some comments on Bonnaterre see David *et al.* (2002).

Table 1 gives an account of plates depicting *Coluber* from Linnaeus (1754) and those that were copied without essential change by Bonnaterre (1790). For all taxa, I give the binominal Latin name as printed in the 1754-work, the name of the taxa as found in the 10th ed. of *Systema Naturae* (Linnaeus, 1758) and the present name of the taxa. For three species Linnaeus (1754) presented two specimens of the same species on different plates, but Bonnaterre chose to copy only one each. These species are as numbered in Table 1: *C. Mycterizans* No. 1 and 30 in Linnnaeus (1754), only No. 30 was copied by Bonnaterre (1790); *C. Lineatus* No. 14 and 32, No. 14 was copied and *C. Mucosus* No. 17 and 40, No 40 was copied. Bonnaterre (1790) changed the Linnaean name of some species as printed in 1754 and 1758 (Linnaeus, 1754; 1758). These names are listed under Note 6 of Table 1. Two of them are replacement names created by Bonnaterre, and hence objective junior synonyms of Linnaeus' taxa; two others are incorrect subsequent spelling, and the last one has a different grammatical gender. Most of the species in Linnaeus' *Systema Naturae* were identified by Dundee (1994).

**Table 1.** Account of plates depicting *Coluber* in Linnaeus (1754) and Bonnaterre (1790). The author of all taxa listed in the column "Current Name" is (Linnaeus, 1758).

| No. | Name in Linnaeus | Plate & Fig. in Linnaeus | Plate & Fig. in Bonnaterre | Note | Taxon name in Linnaeus *Systema naturae* X (1758) | Current Name |
|---|---|---|---|---|---|---|
| 1 | *C. Mycterizans* | 5, f. 1 | | | *C. mycterizans* | *Ahaetulla mycterizans* |
| 2 | *C. Plicatilis* | 6, f. 1 | 9, f. 7 | 1 | *C. plicatilis* | *Pseudoeryx plicatilis* |
| 3 | *C. Calamarius* | 6, f. 3 | 8, f. 5: | 6 | *C. Calamarius* | *Oligodon calamarius* |
| 4 | *C. Candidus* | 7, f. 1 | 21, f. 41: | | *C. candidus* | *Bungarus candidus* |
| 5 | *C. Pallidus* | 7, f. 2 | 16, f. 29: | 2 | *C. pallidus* | *Thamnodynastes pallidus* |
| 6 | *C. Severus* | 8, f. 1 | 13, f. 19: | | *C. severus* | *Xenodon severus* |
| 7 | *C. Annulatus* | 8, f. 2 | 25, f. 51: | | *C. annulatus* | *Leptodeira annulata* |
| 8 | *C. Saturninus* | 9, f. 1 | 21, f. 40: | 2 | *C. Saturninus* | *Chironius fuscus* |
| 9 | *C. Petolarius* | 9, f. 2 | 26, f. 54: | 6 | *C. petolarius* | *Oxyrhopus petola* |
| 10 | *C. Scaber* | 10, f. 1 | 22, f. 43: | 3 | *C. scaber* | *Dasypeltis scabra* |
| 11 | *C. Exoletus* | 10, f. 2 | 23, f. 47: | | *C. exoletus* | *Chironius exoletus* |
| 12 | *C. Canus* | 11, f. 1 | 18, f. 22: | 7 | *C. canus* | *Pseudaspis cana* |
| 13 | *C. Æsculapii* | 11, f. 2 | 15, f. 23: | 6 | *C. Æsculapii* | *Erythrolamprus aesculapii* |
| 14 | *C. Lineatus* | 12, f. 1 | 17, f. 30: | | *C. lineatus* | *Liophis lineatus* |
| 15 | *C. Aulicus* | 12, f. 2 | 16, f. 28: | 4 | *C. aulicus* | *Lycodon aulicus* |
| 16 | *C. Atropos* | 13, f. 1 | 8, f. 4: | | *C. Atropos* | *Bitis atropos* |
| 17 | *C. Mucosus* | 13, f. 2 | | | *C. mucosus* | *Ptyas mucosa* |
| 18 | *C. Reginæ* | 13, f. 3 | 12, f. 17: | | *C. Reginæ* | *Liophis reginae* |
| 19 | *C. Lemniscatus* | 14, f. 1 | 24, f. 49: | | *C. lemniscatus* | *Micrurus lemniscatus* |
| 20 | *C. Albus* | 14, f. 2 | 11, f. 13: | | *C. albus* | *Brachyorrhos albus* |
| 21 | *C. Angulatus* | 15, f. 1 | 10, f. 11: | | *C. angulatus* | *Helicops angulatus* |
| 22 | *C. Melanocephalus* | 15, f. 2 | 12, f. 15: | | *C. melanocephalus* | *Tantilla melanocephala* |
| 23 | *C. Laticaudatus* | 16, f. 1 | 20, f. 36: | 6 | *C. laticaudatus* | *Laticauda laticaudata* |
| 24 | *C. Hippocrepis* | 16, f. 2 | 28, f. 58: | | *C. hippocrepis* | *Hemorrhois hippocrepis* |
| 25 | *C. Fuscus* | 17, f. 1 | 20, f. 39: | 1 | *C. fuscus* | *Chironius fuscus* |
| 26 | *C. Filiformis* | 17, f. 2 | 27, f. 56: | | *C. filiformis* | *Leptophis ahaetulla* |
| 27 | *C. Lacteus* | 18, f. 1 | 16, f. 27 | 1 | *C. lacteus* | *Homoroselaps lacteus* |

| | | | | | | |
|---|---|---|---|---|---|---|
| 28 | *C. Vittatus* | 18, f. 2 | 15, f. 22: | | *C. vittatus* | *Xenochrophis vittatus* |
| 29 | *C. Aurora* | 19, f. 1 | 14, f. 20: | 5 | *C. Aurora* | *Lamprophis aurora* |
| 30 | *C. Mycterizans* | 19, f. 2 | 30, f. 62: | | *C. mycterizans* | *Ahaetulla mycterizans* |
| 31 | *C. Buccatus* | 19, f. 3 | 9, f. 9: | | *C. buccatus* | *Homalopsis buccata* |
| 32 | *C. Lineatus* | 20, f. 1 | | | *C. lineatus* | *Liophis lineatus* |
| 33 | *C. Cærulescens* | 20, f. 2 | 29, f. 61: | | *C. cærulescens* | *Chironius fuscus* |
| 34 | *C. Pullatus* | 20, f. 3 | 27, f. 57: | | *C. pullatus* | *Spilotes pullatus* |
| 35 | *C. Naja* | 21, f. 1 | 17, f. 31: | | *C. Naja* | *Naja naja* |
| 36 | *C. Agilis* | 21, f. 2 | 16, f. 26: | | *C. agilis* | *Erythrolamprus aesculapii* |
| 37 | *C. Stolatus* | 22, f. 1 | 14, f. 21: | | *C. stolatus* | *Amphiesma stolatum* |
| 38 | *C. Atrox* | 22, f. 2 | 20, f. 37: | | *C. atrox* | *Bothrops atrox* |
| 39 | *C. Ahætulla* | 22, f. 3 | 27, f. 55: | | *C. Ahætulla* | *Leptophis ahaetulla* |
| 40 | *C. Mucosus* | 23, f. 1 | 28, f. 59: | | *C. mucosus* | *Ptyas mucosa* |
| 41 | *C. Cinereus* | 23, f. 2 | | | *C. cinereus* | *Liophis cobellus* |
| 42 | *C. Nebulatus* | 24, f. 1 | 20, f. 38: | 6 | *C. nebulatus* | *Sibon nebulatus* |
| 43 | *C. Rhombeatus* | 24, f. 2 | 16, f. 24: | 2 | *C. rhombeatus* | *Psammophylax rhombeatus* |

***Notes***

1 Depicted by Bonnaterre, but is not a direct copy of the Linnaean plate.
2 The tail is more curved.
3 The tail end is not as curved.
4 The tail is not as curved.
5 The tail curling to the right, not left as in Linnaeus.
6 The following binominal names differ between Linnaeus (1758) and Bonnaterre (1790):
*Coluber calamarius: Coluber Calamaria* (different gender)
*Coluber Petolarius: Coluber petalarius* (incorrect subsequent spelling)
*Coluber Æsculapii: Coluber Nigro-fasciatus* (Bonnaterre, 1790)
*Coluber laticaudatus: Coluber Lati-caudatus* (incorrect subsequent spelling)
*Coluber nebulatus: Coluber nebulosus* (Bonnaterre, 1790)
7 Printers error: it should be figure 32.

COPYRIGHT IN THE 18TH CENTURY

**Acknowledgements**

The works of Bonnaterre and Lacepède were studied during a research visit to the Naturhistorisches Museum in Wien, NMW financially supported by SYNTHESYS, founded by the European Community-Research Infrastructure Action under the FP6 "Structuring the European Research Area" Programme (project no. AT-TAF 566).

I am deeply indebted to the staff of the Herpetological collection in the NMW (Dr. F Tiedemann, R. Gemmel, Dr. A. Cabela, Dr. H. Grillitsch, J. Hill, Dr. W. Mayer) for their help and hospitality during my long stay in Vienna. The comments of David Bird (Dorset, UK), Patrick David (MNHN), Richard Wahlgren (Lund, Sweden) and the two anonymous reviewers greatly improved the manuscript.

Lastly, I thank Maria Asp Romefors (Center for History of Science, The Royal Swedish Academy of Sciences, Stockholm) and the Library of the NMW for their assistance in providing plates by Linnaeus and Bonnaterre respectively.

**References**

Andersson, L.G. 1899. Catalogue of Linnean type-specimens of snakes in the Royal Museum in Stockholm. Bihang till Kongl. Svenska Vetenskaps-akademiens Handlingar, Stockholm, 24, Afd. IV (6): 3-35.

Andersson, L.G. 1900. Catalogue of Linnaean type-specimens of Linnaeus's reptilia in the Royal Museum in Stockholm. Bihang till Kong. Svenska Vetenskaps-akademiens Handlingar, Stockholm, 26, Afd. IV (1): 3-29.

Bonnaterre, P.-J. [Abbé]. 1790. Tableau encyclopédique et méthodique des trois règnes de la nature dédié et présenté a M. Necker, Ministre d'État, & Directeur Général des Finances. Ophiologie. Panckoucke, Paris: i-xliv, 1-76, pls. A, 1-42.

David, P., Dubois, A. and Smith, H.M. 2002. A Corrective Note on the Authorship of Taxa Credited to Lacepède and Bonnaterre in the Introduction to the SSAR's Reprint of Shaw's *General Zoology. Volume III.-Amphibians and Reptiles*, with remarks on some of Lacepède's works. International Society for the History and Bibliography of Herpetology Newsletter and Bulletin 3(2): 16-27.

Dundee, H.A. 1994. Current names for the Linnaeus's herpetological species in Systema Naturae X. In: Kitchell K. Jr., Dundee H.A. (eds.) A trilogy on the herpetology of Linnaeus's Systema Naturae X. Smithsonian Herpetological Information Service. Washington. No. 100: 41-54.

Fernholm, B. and Wheeler, A. 1983. Linnaean fish specimens in the Swedish Museum of Natural History, Stockholm. Zoological Journal of the Linnean Society 78: 199-286.

Holm, Å. 1957. Specimena Linnæana. I Uppsala bevarade zoologiska samlingar från Linnés tid. Uppsala Universitets Årsskrift 6: 1-68. English summary 64-68.

Lacepède, B.G.E. 1789. Histoire Naturelle des Serpens. Tome Second. Imprimerie du Roi, Hôtel de Thou, Paris: i+1-8+1-19+i+1-527, pls. 1-22.

Linnaeus, C. 1746. Museum Adolpho-Fridericianum, quod sub Præsidio Caroli Linnæi speciminis academici loco publico bonorum examini submittit Laurentius Balk. (Dissertation). Upsala: (8), 1-48, (2), pls. I-II.

Linnaeus, C. 1749a. Museum Adolpho-Fridericianum, sub præsidio D. D. Car. Linnæi, Amoenitates Academicae, Holmiae et Lipsiae 1: 277-327, pls. 13-14.

Linnaeus, C. 1749b. Äsping. Kongli. Svenska Vetenskaps-Academiens Handlingar, Stockholm, October, November, December: 246-251, pl. VI.

Linnaeus, C. 1754. Museum S:æ R:æ M:tis Adolphi Friderici Regis. Svecorum, Gothorum, Vandalorumque. Hær. Norv. Duc. Slesv. Hols. Storm. Ditm. Com. Oldenb. Delmenhorstiæ &c. &c. in quo Animalia Rariora Imprimis, et Exotica: Quadrupedia, Aves, Amphibia, Pisces, Insecta, Vermes describuntur et determinatur. Typographia Regia, Holmiae: i-xxx, 1-102, pls. 1-33.

Linnaeus, C. 1758. Systema Naturæ per Regna Tria Naturæ, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis. Synonymis, Locis. Tomus 1. Editio Decima, reformata. Holmiae, Laurentii Salvii: i-vii, 5-823, errata.

Linnaeus, C. 1764a. Museum S:æ R:æ M:tis Adolphi Friderici Regis. Svecorum, Gothorum, Vandalorumque &c. &c. &c. in quo Animalia Rariora Imprimis & Exotica: Aves, Amphibia, Pisces Describuntur. Tomi secundi Prodromus. Laur. Salvii, Holmiae: i, 3-110, i.

Linnaeus, C. 1764b. Museum S:æ R:æ M:tis Ludovicæ Ulricæ Reginæ Svecorum, Gothorum, Vandalorumque &c. &c. &c. in quo Animalia Rariora, Exotica, Insecta & Conchilia describuntur & determinantur Prodromi instar. Laur. Salvii, Holmiae: i-vi, 1-720, ii.

Lovén, S. 1887. On the species of *Echinoidea* described by Linnaeus in his work Museum Ludovicae Ulricae. Bihang till Kongl. Svenska Vetenskaps-akademiens Handlingar, Stockholm, 13, Afd. IV (5): 1-185, tab. I-IX.

Lönnberg, E. 1896. Linnean type-specimens of birds, reptiles, batrachians and fishes in the Zoological Museum of the R. University in Uppsala. Bihang till Kongl. Svenska Vetenskaps-akademiens Handlingar, Stockholm, 22, Afd. 4 (1): 3-45.

Löwegren, Y. 1952. Naturaliekabinett i Sverige under 1700-talet. Ett bidrag till zoologiens historia. Lund, Lychnos-Bibliotek 13: 1-407.

Wahlgren, R. 1999. Herpetology in the Transactions of The Royal Swedish Academy of Sciences. A listing of titles 1739 - 1825, translated into English, with annotations and unabridged translations of selected contributions and a brief history of the Academy. International Society for the History and Bibliography of Herpetology Newsletter and Bulletin, Vol. 1(2): 7-26.

Wallin, L. 1991. Uppsala University Zoological Museum. Catalogue of type specimens. 4. Linnaean specimens. Uppsala University Zoological Museum. 1-233. [Publication year variable; printed on request]

Wheeler, A. 1991. The Linnaean fish collection in the Zoological Museum of the University of Uppsala. Zoological Journal of the Linnean Society 103: 145-195.

# Book Review

## L'étymologie des noms d'amphibiens et de reptiles.

Jean Lescure and Bernard Le Garff, 2006.
Paris, Belin (Collection Eveil Nature), 207 pages. 36.50 €.
Numerous B&W ink drawings and portraits.

Modern herpetologists are often puzzled with the meaning of generic and specific names. Greek and Latin being no longer necessarily taught in middle schools and universities, the etymology of such names may remain obscure for some, if not many young and less young herpetologists. Coining such nomina may also prove to be arduous. Without citing any example, we are aware of recent specific names that proved to be rather meaningless. This new book, written in the French language by two well-known French herpetologists, both specialised in taxonomy, ecology and also history of science, analyse in detail the etymology of scientific names of all currently recognized taxa of European amphibians and reptiles. It is hence a welcome addition to this overlooked aspect of taxonomy, although the accounts are limited to the European fauna. Furthermore, as an icing on the cake, the book contains a second part that has a direct bearing on the history of herpetology. The authors prepared biographies of most prominent authors of the past who have described European taxa.

On the cover, the title can be translated as: "The etymology of amphibian and reptile names". However, for some reason unclear even to the authors, this title is not complete. The title page bears a more precise title: "*L'étymologie des noms d'amphibiens et de reptiles d'Europe*". In this book, Europe should be construed in a wider definition than the commonly accepted limits, as it includes Turkey, a country belonging to Asia for the greatest part of its territory. Also included are those species inhabiting the islands of Azores and Canary, in the Atlantic Ocean. Of course, all European islands of the Mediterranean Sea are included. The work is divided into four main parts: Foreword, by a guest author (p. 5-6); Introduction (p. 7-11); First part: "Origine et sens des noms d'Amphibiens et de Reptiles d'Europe", the subtitle of which can be translated as "Source and etymology of the names of European amphibians and reptiles" (but see below) (p. 15-140); Second part: "*Biographies des naturalistes dont les noms sont utilisés dans la nomenclature*", namely: Biographies of naturalists whose names appear in nomenclature" (p. 141-186). The book is concluded by a list of literature cited (p. 187-195), a glossary, in which French words of Latin and Greek origins are explained (p. 196-198); an index of scientific names (p. 199-201), an index of French vernacular names (p. 203-205); and the contents (p. 207). The text is entirely in French.

The preface, written by the prominent French herpetologist and biologist Maxime Lamotte, stress on the necessity to both separate and establish connections between "Taxonomy" and "Nomenclature". The former is purely zoological, whereas the latter is purely conceptual and based on rules. The connection is precisely given by the scientific binomens (or binomina), established by taxonomists but governed by grammatical and nomenclatural rules.

In the Introduction, the authors explain clearly their purposes, methods and choices. Some considerations on the binominal nomenclature are also given. The French binominal nomenclature is also discussed. It is too often forgotten than Duméril and Bibron, in their monumental series "Erpétologie générale", devised a French binominal nomenclature. The authors of the

present work followed the rules of their famous ancestors. The etymology of these French names is also explained. The introduction concludes with the Greek alphabets and their transcription to Latin alphabets.

The core of the book deals with the etymology of Latin or Greek names of European reptiles. Scientific names of all taxonomical categories, from the class down to the species, are dealt with. However, this book does not merely explain the etymology of these names, as did for example Gotch (1986), although this author added data on the distribution of the taxon. In the present book, each account includes the etymology proper, an explanation of French vernacular names, comments on the recent taxonomical modifications or position of the taxon, and, in some accounts, some words on the author(s) of the taxa; in other accounts, the author(s) of the taxon have a full biography in the second part of the book. These accounts vary greatly in length and details. For example, the accounts of the suprafamilial taxa Amphibia or Ophidia, or genera *Bufo*, *Salamandra* and *Chamaeleo* include detailed and interesting historical and religious considerations as well as a summary of popular believes and tales on these animals. On pages 105-108, the authors give a very interesting summary of various legends on the mythical dragon. These parts are highly interesting, and really deserve some efforts for readers having only a limited commend of French language.

Each account is accompanied by the French name of the taxon. Names coined in the present book are noted by an asterisk. Most other names follow those used in Lescure (1989) and Lescure et al. (1990).

The main second part includes the portrayals of 46 herpetologists of the past who described Auropean taxa, from Bernard Germain Étienne de la Ville Lacepède (1756–1825) to Muhtar Basoglu (1913–1981), the noted Turkish herpetologist. Not all of them are French, but all described European taxa. Here again, the lengths of the biographies vary from a few lines to more than one page. Some of these biographies are much more extensive and detailed than those compiled by Adler (1989). Especially worth reading are the biographies of Jean Victor Audouin (p. 143), Charles Lucien Bonaparte (p. 148-149), B. G. E. Lacepède (p. 167-169), and Fernand Lataste (p. 171-173). The biographies are written in a vivid style and obviously resulted from first hand researches by the authors. The final section is the bibliography includes 204 references, mostly taxonomical. Some are of historical relevance and pre-Linnean.

The taxonomy adopted by the authors is rather conservative at the suprafamilial (for example the uses of the taxa Sauria and Ophidia) and generic levels, to not say out of date in some cases. For example, the authors still retain the genera *Elaphe* for European taxa now placed in the genera *Zamenis* or *Rhinechis* (see Utiger et al., 2002). They followed the systematics adopted in Gasc et al. (1997), modified according to the 2004 reprint. In contrast, the taxonomy, especially for Pyrenean lacertids, is up to date, in taking into consideration that the publisher delayed the publication of the book (J. Lescure, comm. pers.). Otherwise, there is little negative to say on this book. I could detect only a few typos, for example, on page190: "Grossenbaker" instead of Grossenbacher).

As a conclusion, I would strongly recommend the purchase of this book. My biggest criticism is in fact that the section on biographies is much too short... Obviously, this book might be neglected by readers who cannot read French. This would be a mistake, as the species accounts are written in such a concise way that most will be understandable by most herpetologists. Nevertheless, for the book to reach a worldwide audience I strongly suggest the authors prepare an English version. Pending such a hypothetical release, this book is a welcome addition to the library

of all herpetologists interested in nomenclatural and historical aspects.

**Literature cited**


Adler, K. 1989. Herpetologists of the past. *In*: Kraig Adler (ed.), *Contributions to the history of herpetology*. Athens, Ohio, Society for the Study of Amphibians and Reptiles, Contrib. Herpetol. N° **5**: 5-141, 1 plate.

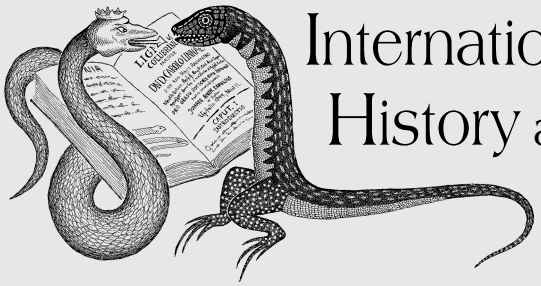
Gotch, A. F. 1986. *Reptiles. Their Latin names explained*. Poole-New York-Sidney, Blandford Press. 176 pp.

Lescure, J. 1989. Les noms scientifiques français des Amphibiens d'Europe. *Bull. Soc. Herp. France*, **49**: 1-12.

Lescure, J., Bour, R. & Ineich, I. 1990. Les noms scientifiques français des Reptiles d'Europe. *Bull. Soc. Herp. France*, **54**: 23-54.

Gasc, J. P., Cabela, A., Crnobrnja-Isailovic, J., Dolmen, D., Grossenbacher, K., Haffner, P., Lescure, J., Martens, H., Martinez Rica, J. P., Maurin, H., Oliveira, M. E., Sofianidou, T. S., Veith, M. & Zuiderwijk, A. (Eds.) 1997. Atlas of Amphibians and Reptiles in Europe. Paris, Societas Europaea Herpetologica & Muséum National d'Histoire Naturelle. 494 pp.

Utiger, U., Helfenberger, N., Schätti, B., Schmidt, C., Ruf, M. & Ziswiler, V. 2002. Molecular systematics and phylogeny of Old and New World ratsnakes, *Elaphe* auct., and related genera (Reptilia, Squamata, Colubridae). *Russian Journal of Herpetology*, **9** (2): 105-124.



International Society for the History and Bibliography of Herpetology

# Bibliotheca Herpetologica

Vol. 6, No. 2, 2006

Formerly the
*International Society for the History and Bibliography of Herpetology Newsletter and Bulletin*

## Contents

Membership Information, Instructions for Authors..... 2

Society News.....3

### Articles

Bauer A.M. and Schaffer C. — The First Published Illustration of a Pleurodiran Turtle?.....4

Bettelheim M.P. and Taskavak E. — The Tortoise and the Tulip – *Testudo graeca ibera* and Osman Hamdi's "The Tortoise Trainer".....11

Daszkiewicz P. and Bauer A.M. — Specimens from the Second Collection of Albertus Seba in Poland: the Natural History Cabinet of Anna Jabłonowska (1728-1800)..... 16

Krecsák L. — Copyright in the 18th century: Linnaean drawings of *Coluber* in *Museum S:æ R:æ M:tis Adolphi Friderici Regis* (1754) reproduced in Bonnaterre's *Tableau encyclopédique et méthodique, Ophiologie* (1790)..... 21

Book Review: L'étymologie des noms d'amphibiens et de reptiles. Jean Lescure and Bernard Le Garff, 2006.....28

© International Society for the History and Bibliography of Herpetology
Printed by Arkitektkopia AB, Malmö, Sweden, July 2006
ISSN 1653-3798